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ABSTRACT

The performance of the South Carolina Commission on Higher Eduation (CHE) from 1967 to 1978 is examined. Findings and recommendations pertain to (1) the development of a master plan for postsecondary education, (2) statewide coordination of academic programs, and (3) development of an appropriation formula for public institutions. The report focuses on problems in each of these three areas and makes specific recommendations for improvements. An analysis of the results of CHE planning revealed that past planning efforts had little impact on institutional actions. Regarding current long-range planning, the report states that CHE is planning for only one future, continued enrollment growth. The prospect of little or no enrollment growth has not been a major factor in planning, although some public institutions have begun to experience enrollment declines. It is argued that an annual or biennial evaluation cycle for existing academic programs is needed because some programs that may have been justified at one time are no longer needed. As a result of its review of the CHE appropriation formula, the Audit Council concludes the present formula is not a reasonably accurate basis for calculating State funding of higher education. (Author)

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South Carolina General Assembly

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South Carolina General Assembly
Legislative Audit Council
Management and Operational Review
of the South Carolina
Commission on Higher Education
June 14, 1978

THE STATE OF SOUTH CAROLINA

GENERAL ASSEMBLY

LEGISLATIVE AUDIT COUNCIL

MANAGEMENT AND OPERATIONAL REVIEW

OF THE

SOUTH CAROLINA

COMMISSION ON HIGHER EDUCATION

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AUDIT SUMMARY

The Commission on Higher Education (CHE) was created in 1967 to strengthen the State's postsecondary system and prevent the needless duplication of resources which could result from the uncoordinated growth of public institutions. During the ten years since its creation, CHE has tended to avoid or postpone actions unfavorable to institutions such as minimizing needless program duplication, promoting the efficient use of resources or assessing the effectiveness of institutions. CHE's limited effectiveness appears to have resulted from the composition of its governing board. CHE membership was composed of nine public members appointed by the Governor and eight members representing public institutions. Although public members could outvote institutional representatives, CHE normally sought consensus of all members before taking strong actions. Members appointed by the Governor rarely pursued actions which some or all institutional representatives opposed. Consequently, a few institutional representatives could block virtually any proposed CHE action which they felt was not favorable to their institutions. As a result, CHE has not completely fulfilled its responsibilities as intended in its original legislation. In such areas as recommending actions that would reduce duplication of existing programs, increase effectiveness and achieve economies in the management of institutions, CHE has either taken no action or has not been effective.

The 1978 General Assembly recognized the need to change CHE membership. Act 410 provides CHE with 18 members wholly representative of the public. This Act is intended to provide CHE with a membership sufficiently independent of institutional influence to

make decisions which will benefit the entire State, even when one or more public institutions feel that their plans for development may be thwarted. The General Assembly has also reinforced CHE's responsibility to develop a master plan, approve new academic programs, identify and recommend termination of unnecessary programs and prepare a comprehensive appropriation request on behalf of public institutions.

In strengthening CHE, South Carolina joined thirteen other states which since 1959 have moved away from voluntary or advisory coordinating agencies to coordinating agencies with limited regulatory powers (see Appendix A). Other states have also discovered that as weak coordinating agencies are strengthened, members representing the general public must be added to assure that a stronger coordinating agency will use its powers. Whereas South Carolina previously had the highest proportion of institutional representation among other states with similar coordinating agencies, now South Carolina and ten other states have no institutional membership on their coordinating bodies.

CHE, while composed of both public and institutional representatives, pursued its responsibilities in long-range planning, academic coordination and budget review in directions which would elicit the least opposition from institutions and, by doing so, neglected important statewide problems. First, in developing a master plan CHE is assuming substantial growth in higher education while ignoring the implications of factors indicating that some, if not all, public colleges and universities will have to manage little or no growth over the next decade. Second, CHE has emphasized approval of new programs while giving a low priority to identifying and recommending the elimination of unnecessary existing programs. And third, in

attempting to develop an appropriation formula that would be acceptable to all institutions, CHE has built provisions into the formula which would fund some institutions in excess of the amounts necessary to operate in a reasonably economical manner.

This audit does not describe CHE accomplishments but focuses on problems which deserve the immediate attention of the newly restructured CHE. The Audit Council recognizes that the new CHE has not yet had time to address these problems and thus has confined its criticisms to the CHE as previously constituted. The major findings discussed in detail in Chapters I, II and III are summarized in the following sections. The Audit Council makes 22 specific recommendations for improvement that are listed at the end of each chapter. These recommendations offer some new directions for CHE and are intended to provide a future agenda for more effective CHE action.

Inadequate Long-Range Planning (Chapter I)

Developing a long-range or master plan for postsecondary education is an important CHE responsibility. CHE is the only postsecondary agency which is likely to consider a statewide perspective when making studies and recommendations. Planning should also provide the operational basis for coordinating academic programs and analyzing appropriation needs of public institutions.

Both the planning process and the results of that process were evaluated. Recent studies by the Education Commission on the States and the Carnegie Commission on Higher Education have demonstrated that the planning process is critical to the development of a viable master plan. The Audit Council compared the planning procedures which have been most successful in other states with CHE's planning process and found that improvements are needed in three important areas. The

CHE planning process (1) has not developed measures for postsecondary education goals; (2) has not sufficiently involved students, faculty or the public in identifying problems and developing recommendations; (3) has not [illegible] for change nor devised a plan for implementing recommendations. Correcting these deficiencies is fundamental to CHE fulfilling the Legislature's mandate that the State have a high quality, workable master plan.

CHE's first comprehensive plan, Goals for Higher Education to 1980, published in 1972 had little impact on the coordination or quality of postsecondary education. The Goals report made many recommendations, but CHE failed to plan for or strongly advocate the implementation of its recommendations. CHE never established a timetable, assigned responsibility or established specific procedures for the implementation of recommendations. As a result, the Goals report did not become a guide for institutional action. Most educators and State officials questioned by the Audit Council believe only a few of CHE's recommendations in the Goals report were ever implemented.

CHE is now in the process of developing a second comprehensive or master plan. In January 1978 the first portion of this master plan was presented to the Legislature entitled Comprehensive Planning for Postsecondary Education: Goals, Enrollment Projections, and Institutional Missions.

Outcomes of current CHE efforts to develop a master plan are not likely to prepare the State to effectively manage future changes. CHE assumes that the future will be like the past, continued enrollment growth, with no attention given to actions that will be necessary if conditions change. CHE forecasts an increase in enrollment through

1985 of between 26 and 40 percent for colleges and universities. Other regional and national forecasts predict little or no enrollment growth over the next decade. Some South Carolina public institutions have already experienced declining enrollments over the last two years. Should these public institutions continue to experience stable or declining enrollments and growth in the entire higher education system levels off, CHE planning will not be relevant to future changes. By emphasizing the prospect of continued growth, CHE planning studies have not adequately addressed critical issues associated with managing little or no growth. These issues include identification of unnecessary academic programs, transfer of students among institutions, better use of existing facilities, student tuition policies and faculty compensation.

CHE planning has also avoided the question of how effectively public institutions are performing. While the effectiveness of higher education is being questioned by some groups, not a single CHE planning study addresses what students are learning or how well their educational experience prepares them for life after graduation.

Planning poorly done is worse than no planning effort. The past years of CHE planning have consumed additional funds, time and energy without demonstrable improvements in higher education. More importantly, planning inadequately done can create a false sense of security that the State is preparing for the future. Consequently, the State may not recognize problems early enough to implement effective action.

Failure to Promote the Termination of Unnecessary Academic Programs (Chapter II)

CHE has failed to develop a continuing process to identify academic programs which institutions should terminate because they (1) unnecessarily duplicate programs offered by other public or private

institutions, (2) do not produce a sufficient number of graduates to achieve an effective use of resources or (3) are no longer needed because of an oversupply of graduates in some professional fields. CHE has rarely drawn attention to unnecessary programs which institutions should eliminate. Without such external pressure, academic administrators admitted to the Audit Council that they have given into faculty demands and other internal pressures to continue some unnecessary programs.

At least 17 other states have established a continuing process for evaluating academic programs after they are implemented. Either an annual or biennial evaluation cycle for existing programs is needed in South Carolina because some graduate programs which may have been justified at one time are now unnecessarily duplicative because conditions have changed. Some examples of unnecessary programs are provided in Chapter II. The experience of other states has demonstrated that if colleges and universities are required to terminate unnecessary programs and consequently reduce faculty, a direct cost savings can be achieved. Total State appropriations to institutions could be reduced or savings allocated to improve needed programs.

The Audit Council also found that due to a lack of coordination institutions appear to be offering some unnecessary courses away from the main campus of institutions. Presently a public college or university can offer any of its courses at a location other than the main campus. CHE has attempted with little success to coordinate off-campus teacher education courses. There are several instances of apparent unnecessary duplication among off-campus teacher education courses. CHE has not made a comprehensive study of off-campus courses other than those for teachers or recommended ways to better coordinate

these courses. Problems which will worsen if coordination of off-campus courses is not improved include unnecessary duplication, over-funding and poor control over the quality of courses.

Inaccurate and Unrealistic Appropriation Formula (Chapter III)

The CHE appropriation formula is not a reasonably accurate basis for calculating State funding of higher education. Since 1972 CHE has been using a formula approach in presenting its annual budget request to the Budget and Control Board and General Assembly. The CHE formula has never been fully funded and in most years the Legislature has allocated appropriations on a basis other than the CHE formula.

The Audit Council found that if the CHE formula were fully funded, some institutions would receive State funding in excess of the amount needed to operate efficiently. This generous funding is due to over-estimated enrollments, excess salary funds, and substantial deviations between formula cost calculations and actual institutional expenditure patterns. In addition, the CHE formula emphasizes quantity rather than quality. Basing appropriations on the formula may encourage institutions to obtain more students instead of improving the education of students.

Focusing on problems should not obscure CHE accomplishments. CHE has developed an effective process for assuring that new academic programs are needed and do not unnecessarily duplicate existing programs. When CHE was created in 1967 virtually no comparative information existed about the operation of the State's colleges and universities. Now comparable information regarding students, faculty, facilities, programs and finances are regularly collected and disseminated through the CHE management information system. An Audit

Council survey of institutional administrators confirmed that they have used CHE's management information system in planning and comparing their institution with other colleges and universities in the State.

However, changes in postsecondary education expected over the next decade will require CHE to direct its attention to the task of reallocating existing resources to more effective uses. Postsecondary education in South Carolina is now entering a very uncertain period. Whereas the last decade was one of growth, a great uncertainty now exists about future enrollment changes. It appears that some institutions may continue to grow but other public colleges and universities will experience enrollment stabilization or decline. Stable or declining enrollment may lead to greater competition among institutions for students and scarce resources. Many educators believe the scarcity of students and dollars will affect the quality of education. They fear that in reaction to shrinking enrollment, institutions may lower admission standards and become more reluctant to impose high academic standards on students.

Legislative action to provide CHE with a strong independent membership and adequate statutory authority for planning program coordination and budgeting was a necessary prerequisite for improving the coordination and effectiveness of postsecondary education in the future. Whether the Legislature's expectations will be realized depends upon the performance of the newly restructured CHE. This audit report is intended to identify statewide problems which merit the immediate attention of CHE. By assuming leadership and acting on statewide problems, CHE can be an important force in managing future change and strengthening all of the State's public postsecondary institutions. Such CHE leadership is necessary for quality education beyond high school to be available to every citizen.

INTRODUCTION

The Legislative Audit Council was created under Act 1136 of 1974, as amended by Act 157 of 1975. The Council consists of three public members, elected by the General Assembly to non-concurrent six year terms, and six ex-officio members: The President of the Senate, the Speaker of the House of Representatives, the Chairman of the Senate Finance Committee, the Chairman of the House Ways and Means Committee, and the Chairmen of the Senate and House Judiciary Committees. The Council employs professional and clerical staff personnel who conduct audits under the supervision of the Council.

The Legislative Audit Council provides a number of services to the General Assembly of South Carolina. It conducts audits and investigations of State or State-related agencies and programs as referred to it by the General Assembly, Legislative Committees or Assembly Members, and generates a schedule of audits of the operations of State agencies and departments to be performed periodically.

Purpose of This Audit

An audit of the Commission on Higher Education was requested as a follow-up to the Legislative Audit Council's report on Overlapping and Unnecessary Duplication in Higher Education published in December 1976. The Legislator who requested this audit wanted it to include a review of the CHE's duties and responsibilities and an evaluation of the performance of those duties. Among the duties specifically mentioned were the CHE's responsibilities for planning, for coordinating academic programs and for developing an appropriations formula for use in recommending funding for colleges and universities.

Scope and Method

The audit covered the activities of the CHE since its establishment in 1967. Audit Council staff interviewed 56 persons including public college and university administrators, Chairmen and staff of the Board for Technical and Comprehensive Education, CHE staff, Chairmen of the seven institutional boards of trustees and appointed members of the CHE. Audit Council staff also observed the activities and interviewed the staff of the Alabama Commission on Higher Education and the Tennessee Higher Education Commission. Special studies, long-range plans, budget requests and other reports published by higher education coordinating or governing agencies in 17 other states were examined.

Two hundred and thirty-four persons within the State were asked via a questionnaire to evaluate the quality and usefulness of various CHE studies and reports they had received. In addition, two out-of-state consultants provided an impartial evaluation of the quality of major CHE publications. The Audit Council acknowledges the assistance of Dr. Robert Berdahl and Dr. Hans Brisch. Dr. Berdahl is a professor of Higher Education at the State University of New York at Buffalo and is author of Statewide Coordination of Higher Education (American Council on Education, 1971). Dr. Brisch is Assistant Vice-President for Academic Affairs at the University of Nebraska and was previously the Associate Director for Academic Affairs, Illinois Board of Higher Education.

Audit Council staff performed a careful analysis of documents, policies and activities as well as the statutes relating to the CHE. Monthly CHE meetings and meetings of standing committees and advisory

committees were observed by the Audit Council over a nine-month period. The Audit Council appreciates the complete cooperation provided by CHE staff and members during this audit.

BACKGROUND

Postsecondary Education in South Carolina

Dramatic increases have occurred in South Carolina's post-secondary education system in the past decade. When CHE was created in 1967 there were 6 public four year colleges and universities with a total enrollment of approximately 24,000 full-time students. In the Fall, 1977 the State had 12 public colleges and universities serving over 53,000 full-time students. The University of South Carolina also has 5 two-year branches with 3,000 students. In addition the State's postsecondary system has 16 technical education and college centers.

Appendix B lists all of the State's public postsecondary education institutions and the date of their establishment as public institutions. Included in Appendix B is a map showing the location of public institutions.

South Carolina also has a diverse private higher education sector. There are 20 senior colleges and universities and 5 private junior colleges.

The Commission on Higher Education (CHE)

The South Carolina Commission on Higher Education, established by Act Number 194 of the General Assembly in 1967 and amended by Act 410 of 1978, is the agency of State Government specializing in higher education.

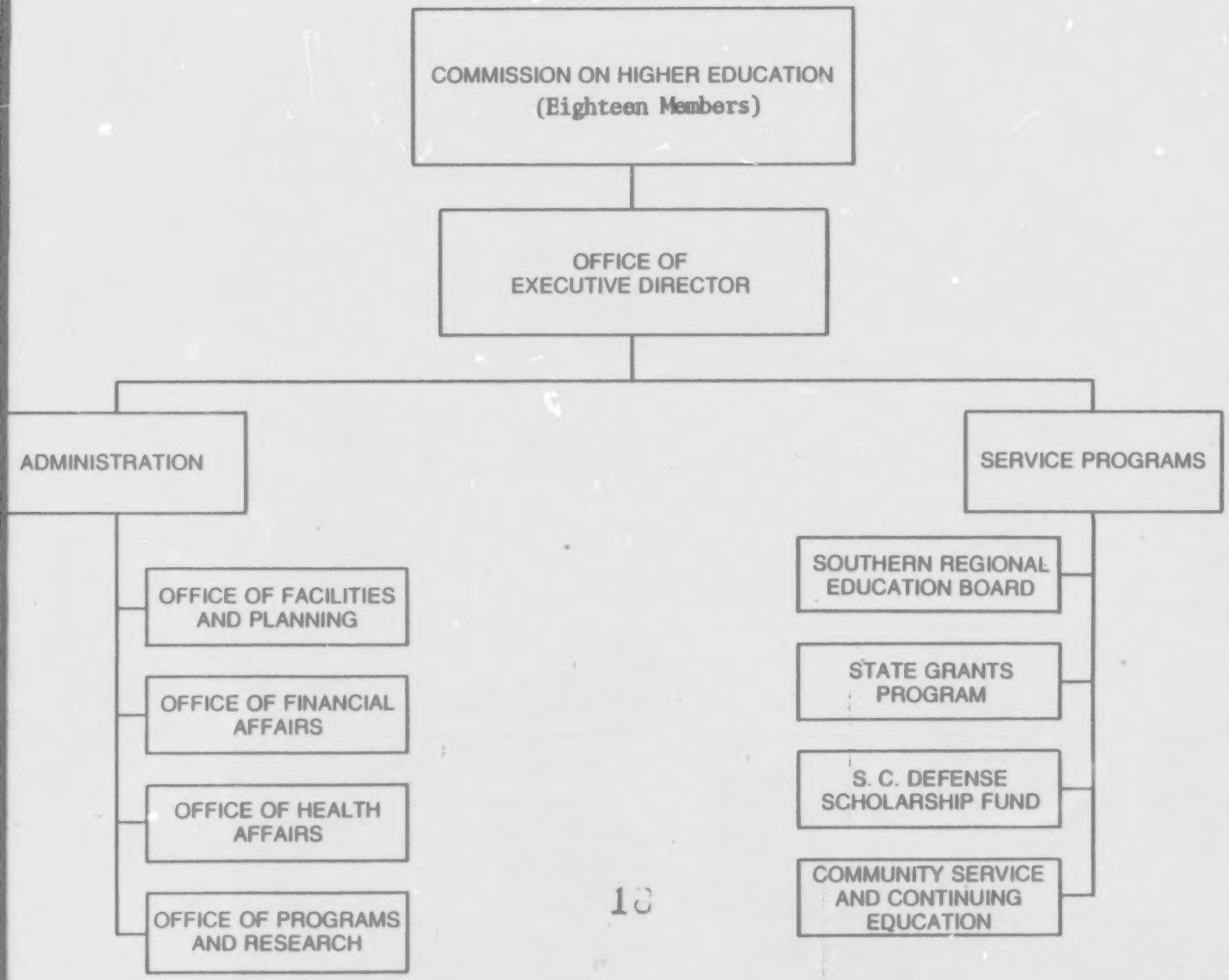
The Commission's primary concern is the strengthening of all the State's institutions of higher learning, to the end that quality

education and training beyond high school may be available to every citizen.

The functions of the Commission as determined by the General Assembly include the following:

1. To make studies regarding roles, operations, structure and external relations of South Carolina institutions of higher education.
2. To submit recommendations as may be desirable to the Budget and Control Board and General Assembly regarding policies, programs, curricula, facilities, administration and financing of the State-supported institutions of higher education.
3. To receive and review the annual appropriation requests of the State-supported institutions of higher education and submit recommendations to the Budget and Control Board and the General Assembly. Capital budgets also are reviewed by the Commission.
4. To approve new programs before they are undertaken by any State-supported institution of higher education unless approved by the General Assembly, and to recommend termination of unnecessary programs.
5. To administer certain Federal programs authorized by the Higher Education Act of 1965, as amended, including Community Service and Continuing Education under Title I, Equipment for Undergraduate Instruction under Title VI, and Construction of Undergraduate Facilities under Title VII.

CHE Organization Chart



CHE Funding FY 76-77

The expenditures of the Commission are listed under two headings: Administration (operating expenses of the Commission) and Service Programs (coordinated by the Commission). Attention is called to the fact that 58 percent of total expenditures directly supported educational activities other than those of the Commission. None of these flow-through funds were expended on operating expenses.

I.	Administration (Operating Expenses)	
	1. Personnel Services (Salaries, etc.)	$ 382,489
	2. Other Operating Expenses	168,622
	TOTAL ADMINISTRATION	$ 551,111
II.	Service Programs	
	1. S. C. Defense Scholarship Fund	$ 187,000
	2. Southern Regional Education Board Grants to Students	344,050
	3. Southern Regional Education Board Fees & Assessments	64,000
	4. Project Grants, Title I, Federal HEA 1965	175,118
	TOTAL SERVICE PROGRAMS	$ 770,168
	TOTAL - Commission on Higher Education	$1,321,279
III.	Source of Funds	
	1. State Appropriation	$1,076,088
	2. Federal Funds	245,191
		$1,321,279

CHAPTER I

CHE PLANNING PROCESS AND THE DEVELOPMENT OF A MASTER PLAN FOR POSTSECONDARY EDUCATION

INTRODUCTION

Educators and State officials in South Carolina have long recognized the importance of statewide higher education planning. The 1962 report of the Governor's Advisory Committee on Higher Education (Wiggins Report) concluded:

> The overall role of State supported higher education in South Carolina should be determined and within that basic framework the role of the various individual institutions should be clearly delineated. At present there is no recognized or definite role of the State in higher education or a comprehensive plan to meet the educational needs of the State.

When created in 1967, the CHE was given broad responsibility for remedying the situation described in the Wiggins report. The CHE's planning responsibility was reinforced in July 1974 when Governor West designated the CHE, augmented with the State Superintendent of Education, the Chairman of the Advisory Council of Private College Presidents and a representative from the proprietary sector, as the State Postsecondary Education Planning Commission.

The 1978 General Assembly directed CHE to make a complete and thorough study of postsecondary education and develop a master plan. Section 4 of Act 410 of 1978 states that the master plan shall:

> make the best possible use of existing plants and administrative and instructional staffs. It shall include the mission and scope of each public institution of higher learning. It shall consider the location, offerings and objectives of privately supported institutions of higher learning. The master plan shall create a one-year program for each institution of higher learning establishing its goal, mission,

> procedures and enrollment objectives. It shall include a long-range plan for higher education and recommendations for legislation revising statutes governing public higher education to eliminate duplication of authority among governing bodies of public institutions of higher learning and their programs and curricula. The master plan shall, as soon as practical, address all major academic and public service programs of the postsecondary institutions in terms of goals and objectives, costs versus benefits to the people of the State, relationship to state and local governmental programs, priority for use of scarce resources within postsecondary education, strategies of instruction and operation and effectiveness of the programs in achieving their goals and objectives. The master plan shall be used to guide the Commission in its annual budget recommendations to the Budget and Control Board and the General Assembly and, as soon as practical, the master plan shall constitute a complete evaluation of postsecondary education programs sufficient to provide the basis of a zero-based budget analysis of postsecondary education. The master plan shall be presented to the General Assembly by the commission within one year of the effective date of this act and shall take effect upon approval by the General Assembly, and shall be reviewed annually by the commission for the purpose of making revisions to assure its continued validity.

The Legislature intends planning to be one of the most important functions of CHE. It is the State's only entity which can be expected to consider a statewide perspective when making studies and recommendations. Planning provides the basis for CHE's other responsibilities; the coordination of academic programs and preparation of budget requests should be means for achieving specific planning goals and purposes.

The Audit Council examined both the planning process and the results of that process. This chapter is divided into two major sections. The first part describes three weaknesses in CHE's planning

process. The second part analyzes the two major planning reports CHE has developed since its creation. CHE's initial comprehensive plan was published in 1972 entitled Goals for Higher Education to 1980. In 1978 a second planning report was presented to the Legislature entitled Comprehensive Planning for Postsecondary Education: Goals, Enrollment Projections, and Institutional Missions. Weaknesses in both of the plans are discussed in detail in the second section of this chapter.

EVALUATION OF CHE PLANNING PROCESS

The planning process is critical to the development of a viable master plan for postsecondary education. Recent studies by the Education Commission on the States and the Carnegie Commission on Higher Education have found the effectiveness of postsecondary planning to be dependent upon the planning process. These studies have identified some planning procedures which are closely related to the effectiveness of planning in improving postsecondary education. The Audit Council compared the planning procedures which have been most successful in other states with the way CHE has conducted its planning. On the basis of this analysis, the Audit Council concludes that improvements are needed in three important areas of CHE planning.

The CHE planning process (1) has not developed measures for postsecondary education goals; (2) has not sufficiently involved students, faculty or the public in identifying problems and developing recommendations; and (3) has not developed specific recommendations for change nor devised a plan for implementing recommendations. Correcting these deficiencies is fundamental to CHE fulfilling the

General Assembly's mandate that the State have a high quality, workable master plan. The nature of improvements needed in the planning process are explained in the following sections.

No Measures for Postsecondary Goals

In 1972 CHE adopted eight goals for the postsecondary system for its first comprehensive plan and six years later CHE has reaffirmed the same eight goals. However, CHE has not stated these goals in specific enough terms so that it would be possible to measure progress made toward achieving the goals. For example, CHE has adopted as one goal "to improve the efficiency of postsecondary education as measured by the effective use of resources." But CHE does not explain how it can be determined at some future date whether or not institutions have used resources more effectively. Another goal adopted by CHE is "to improve the quality of postsecondary education." Again, CHE does not specify the characteristics of a quality educational program and explain how the quality of a public institution's programs are to be measured.

Stating educational goals in measurable terms is the first step toward improving postsecondary education. Without translating general goals into measurable terms, CHE cannot accurately determine the extent of improvements necessary to close the gap between postsecondary education's current status and the desired future conditions as expressed in goal statements. Measurable goals are also necessary if postsecondary education is to be held accountable for its performance. The Legislature has given CHE responsibility for annually evaluating the master plan and reporting on its continued validity. But without more precise goals, CHE will not be able to determine

at some future date how far the State has progressed in achieving postsecondary education goals and what future action would lead to greater improvement.

Insufficient Opportunity for Student, Faculty and Public Input

The current planning process appears to isolate itself from the viewpoints of students, faculty and the public. CHE has not held any public hearings in regions of the State nor has it made any plans for future public hearings. At a time when many people are concerned about the results of higher education, it is imperative that the planning process encourage the expression of diverse viewpoints.

Long-range planning conducted by Illinois and Tennessee offer examples of a more open process. The Illinois Board of Higher Education involved citizens by holding public hearings on planning directions, interim reports, and drafts of the final plan. The Tennessee Higher Education Commission has sponsored masterplanning forums to promote the exchange of ideas among educators, State officials and the public. Without broader participation in the future, CHE risks developing a plan which fails to address the major concerns of a large proportion of the higher education community and the public.

Recommendations for Change are Vague and There is No Implementation Plan

In Comprehensive Planning for Postsecondary Education published in January 1978, the only proposals CHE has made to improve the coordination and quality of postsecondary institutions are contained in institutional mission statements. Institutional mission statements are intended to define the role of each public institution. The Audit Council

found CHE mission statements to lack specific recommendations for action. CHE does not explain how recommendations should be implemented or designate who is responsible for implementation. As a result, mission statements developed by CHE are unlikely to stimulate effective action.

The vagueness of CHE mission statements is demonstrated by the following quotations from Comprehensive Planning for Postsecondary Education published in January 1978.

> (Medical University of South Carolina) Since the Medical University is not a comprehensive general purpose university, and since each of the existing graduate programs may benefit from the infusion of expertise in other related areas, the Medical University should also draw upon the resources of the other Charleston institutions.
>
> (USC and Clemson) Each university should continue to develop, to high levels of competence and of quality, those programs consistent with its mission.
>
> (State Colleges) Each of the nine existing senior colleges should offer a reasonable spectrum of undergraduate degree programs, as appropriate for the State and for the geographic area served by each.
>
> Francis Marion was designed to be a commuter institution to serve the Pee Dee area... few changes are anticipated in this role.
>
> (Lander College) The College's mission may in the future include limited offerings at the master's level, should unmet needs be demonstrated.
>
> (S. C. State) The College should be encouraged in its efforts to develop unusual programs of high quality that will assist it in serving its current mission as a regional institution.

In other instances CHE attempts to recommend specific action, but usually includes vague qualifying language which could later be used as a loophole to avoid any action. Consequently, it is not

clear what changes to expect if the Legislature endorsed CHE mission statements. Examples of loopholes written into recommendations are indicated by the underlined parts of the following CHE proposals.

> Some duplication of graduate programs between these universities has occurred, and some will continue to be necessary. In those cases, the institutions should work cooperatively to avoid needless duplication and to promote greater efficiency.
>
> Remedial and developmental studies do not belong in the senior institutions except on an extremely limited scale.

These CHE mission statements do not specify the changes in academic programs which are needed over the next several years. Academic programs are the heart of higher education institutions, and meaningful mission statements should be expected to:

(1) identify unmet needs and suggest which institutions are most capable of developing new academic programs,

(2) specify academic disciplines in which no new academic programs are needed,

(3) identify institutions which should improve specific academic programs and suggest strategies for improvement, and

(4) identify opportunities for inter-institutional cooperation, assign responsibility for action, and establish a timetable for implementation.

ANALYSIS OF THE RESULTS OF CHE PLANNING

Since 1967 CHE had developed two major plans for postsecondary education. CHE's first comprehensive planning report, Goals for Higher Education to 1980, was published in 1972. However, the

Goals report had little impact on the coordination or quality of postsecondary education. In January 1978 the first portion of a second comprehensive or master plan was presented to the Legislature entitled Comprehensive Planning for Postsecondary Education: Goals, Enrollment Projections, and Institutional Missions. The major weakness with this latest document is that it is based on a very questionable assumption - that public colleges and universities will continue to have enrollment growth. While some public colleges and universities may continue to have increasing enrollments, other institutions have already begun to experience declines in actual enrollment. Regional and national enrollment forecasts predict little or no increase in enrollment for the next decade. Consequently, CHE planning will not be relevant to the future difficulties facing those institutions experiencing no growth or a decline in enrollment over the next decade. The remainder of this chapter presents a detailed analysis of the quality and impact of CHE's two comprehensive plans.

Past CHE Planning Efforts Had Little Impact on Institutional Actions

CHE in 1972 published Goals for Higher Education to 1980 as a plan for the improvement of the postsecondary education system. The majority of the report's recommendations were directed toward the institutions. However, the institutions never accepted the Goals report as an explicit guide for coordinating or improving postsecondary education.

The lack of institutional acceptance was demonstrated two years after the report's publication when the presidents of public colleges and universities presented a resolution to CHE urging it to take

"immediate action to develop a Master Plan for Higher Education in South Carolina, a comprehensive plan designed to guide our actions in postsecondary education for at least the coming decade." According to a CHE analysis, only 8 of 29 recommendations directed toward the institutions had been fully implemented by April 1978. An Audit Council survey of educational administrators and State officials in Summer 1977 found that 70 percent of the respondents said that none or only a few recommendations have been implemented.

IMPLEMENTATION OF GOALS REPORT RECOMMENDATIONS

Survey Question: In your opinion, how many of the recommendations made in the Goals for Higher Education to 1980 have been implemented?

Responses: (50 persons responding as familiar with the Goals report out of 102 respondents)

Almost All	0%
Substantial Portion	30%
Only A Few	62%
Virtually None	8%

The Goals report's lack of impact on institutional actions occurred because CHE failed to plan for the implementation of recommendations. South Carolina's plan set no timetables nor assigned responsibility for implementation. The report included no procedure for monitoring and assessing progress toward implementation. Analysis of the Goals report reveals that the recommendations were not specific enough to allow the CHE at some future date to determine whether they were ever implemented. A consultant to this audit,

Dr. Robert Berdahl,* compared the Goals report to higher education plans of 26 other states. He found that while only five states (California, New York, Washington, New Jersey, and Pennsylvania) scored higher than South Carolina in terms of the issues and depth of coverage, the Goals report was weak in its treatment of plan implementation. As one academic dean expressed the problem to the Audit Council, "recommendations are only slightly meaningful if not pursued in a spirit of expected accountability."

Another reason for the lack of impact has been the CHE's failure to assert the leadership necessary to make the report effective. College and university administrators told the Audit Council that the CHE has done an inadequate job of keeping important issues in higher education before the Legislature and the public. Although the CHE prepares an annual report of its activities, it has never reported on the progress made toward achieving any of the objectives established in the Goals report. In addition, the CHE has rarely related its actions to recommendations made in the Goals report.

Outcomes of the Current Planning Process Should Prepare the State for Little or No Enrollment Growth

The Audit Council examined CHE's most recent planning efforts which include its 1978 report, Comprehensive Planning for Postsecondary Education: Goals, Enrollment Projections, and Institutional Missions. CHE's current planning will not prepare the State to effectively manage changes which will confront institutions experiencing enrollment stabilization or decline. CHE is only planning for one future,

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continued enrollment growth. CHE has not considered the prospect of little or no enrollment growth as a major factor in its planning. Consequently, CHE planning has not adequately considered the difficulties facing public colleges and universities that are expected to have stable or declining enrollments over the next decade.

The challenge which is expected to confront higher education in the United States during the next decade has been characterized as "the management of decline" by a recent study for the Carnegie Council on Policy Studies in Higher Education. While some South Carolina institutions may continue to experience growth, there are strong indications that other institutions will have to confront enrollment declines and the whole State may face little or no enrollment growth in postsecondary education.

The major reason CHE is only planning for continued growth is because it has forecast an increase in enrollment from 1976 through 1985 of between 26 and 40 percent for colleges and universities. Other regional and national education agencies have made equally valid enrollment forecasts of substantially less growth than predicted by CHE. Rather than the continuation of significant growth, the National Center for Education Statistics forecasts nationally only an overall 5.5 percent increase in the 18 to 21 age group attending four year colleges and universities through 1985. The Southern Regional Education Board (SREB) forecasts for South Carolina a net decrease of 5.4 percent through 1985 in total enrollment. Table 1 shows the dramatic differences between these enrollment projections and the enrollment assumptions upon which CHE bases its planning.

TABLE 1

PROJECTED ENROLLMENT CHANGE 1975 TO 1985

	SOUTH CAROLINA		THE NATION	
	4 YEAR COLLEGES AND UNIVERSITIES	ALL INSTITUTIONS	4 YEAR COLLEGES AND UNIVERSITIES	ALL INSTITUTIONS
National Center for Education Statistics			+5.5%	+19.4%
Southern Regional Education Board		-5.4%		
CHE	+26-40%	+39-48%		

CHE enrollment estimates differ from those of SREB for two reasons. First, CHE forecasts that the percent of the State's 18-21 year age group enrolling for degree credit in colleges and universities will increase from 39.3 percent in 1975 to 51.5 percent in 1985. SREB predicts the increase will be to 43.5 percent by 1985 which conforms closely to the projected national pattern. Second, CHE expects the net in-migration of the 14-20 age population, which occured during 1970-1974, to continue unchanged. In contrast, SREB predicts South Carolina will return to the pattern of 1960-1970 and will again become a net exporter of persons in the 11-20 age group.

The intent of this discussion is not to prove whether or not CHE's assumptions about the percentage of the college age group enrolling in college or about the in-migration of population are wrong. No one can know for certain how all the variables affecting future enrollments

will change. However, the forecasts for stable or declining enrollments made by other regional and national education groups as well as unsteady actual enrollments among State institutions cannot be ignored. The actual rate of increase in enrollment for South Carolina public institutions has dramatically declined over the last seven years with some institutions having actual declines in the last two years (see Table 2). A number of State officials, college and university administrators as well as CHE members told the Audit Council that they do not believe all institutions will experience continued enrollment growth. To be effective, planning must prepare the State for alternative futures. In this period of uncertainty, an effective master plan must include actions to improve coordination and maintain educational quality in the event enrollment growth does not occur.

In contrast with South Carolina, the Ohio Board of Regents has just begun a study of how a statewide system of higher education can best survive enrollment decline. The study consists of several elements. The first considers how institutions can remain financially stable despite an enrollment drop. Another component will develop a review strategy for institutions to use in evaluating existing programs, testing the relative urgency of programs, and establishing funding priorities. Efforts will be made to identify opportunities for cost control. Finally, the study will address an important problem for colleges and universities. They are not run by people trained in administration. An attempt will be made to establish centers for management training of department chairmen, deans, and some vice-presidents.

TABLE 2

ACTUAL STUDENT HEAD-COUNT CHANGES FOR PUBLIC COLLEGES AND UNIVERSITIES

1971 - 1977

Institution	% Actual Change Fall 1971 Over Fall 1970	Fall 1972	Fall 1973	Fall 1974	Fall 1975	Fall 1976	Fall 1977
USC-Columbia (Excluding Medical School)	+16.0%	+19.0%	+ 9.0%	+ 6.0%	+ 7.5%	- 2.7%	- 1.3%
Clemson	+ 9.0%	+ 9.0%	+10.0%	+ 5.0%	+ 7.3%	+ 0.1%	- 1.0%
Citadel	+ 4.0%	+ 4.0%	+ 3.0%	+ 0.3%	+12.6%	- 3.0%	+ 3.3%
College of Charleston	+117.0%	+34.0%	+18.0%	+28.0%	+18.3%	+10.4%	+ 3.1%
Francis Marion	*59.0%	+15.0%	+15.0%	+20.0%	+17.8%	+ 1.4%	- 2.2%
Lander	N/A	N/A	N/A	+27.0%	+26.4%	+ 5.3%	- 3.0%
S. C. State	+11.0%	+11.0%	+10.0%	+ 5.0%	+16.0%	+ 8.4%	+ 1.9%
Winthrop	+ 1.0%	+ 3.0%	- 7.0%	+ 1.0%	+ 4.6%	+ 0.9%	+12.0%

The Ohio Board is addressing issues which CHE has largely ignored. In order to address problems associated with little or no growth, CHE must give more attention to such important issues as unnecessary duplication, transfer of students among institutions, renovation of existing facilities, student tuition policies and faculty compensation. The following cases illustrate inadequate CHE planning in these areas.

Unnecessary Duplication - In a period of limited growth unnecessary duplication among institutions would absorb vital resources from needed academic programs. A planning project to inventory and analyze all existing academic programs for gaps and unnecessary duplication was originally scheduled to be completed in June 1976. Committees of academic administrators were to analyze the degree programs. Three academic program inventories have been published, but no CHE action has been initiated to analyze unnecessary duplication.

Transfer of Students Among Institutions - In an environment of unsteady growth, transfer policies among institutions assume a new importance. A compilation of the policies of the State's senior colleges and universities concerning transfer students from two-year colleges was published in May 1977. However, CHE has not completed an analysis of the transfer patterns among institutions or recommendations for change.

Inventory of Building Quality - Future capital expenditures are more likely to be for renovation of existing facilities than for expansion of the physical plant. CHE has responsibility for reviewing capital projects and published in 1976 a uniform method for assessing building condition. However, CHE has not carried out Phase II of this project, which was to conduct a building quality survey of all institutions.

The experience of the Tennessee Higher Education Commission (THEC) illustrates the value of a building quality survey. In 1976 THEC conducted an evaluation of the adequacy of facilities on each campus. This evaluation provided objective, comparable information with which to plan, on a statewide basis, for the better use of existing facilities.

Student Tuition and Faculty Compensation - Unsteady enrollment will create pressure to alter student tuition and faculty compensation rates. CHE originally planned to propose a uniform tuition and fee structure by September 1976 and recommend improvements in faculty compensation structures by January 1978. However, completed studies of these topics prepared by out-of-State consultants were designed by CHE staff only to provide comparative information. Further study is necessary before recommendations for improvement can be made.

Effectiveness of Postsecondary Institutions - At present the State has no systematic way of judging the effectiveness of higher education. Information about the intended and actual outcomes of individual institutions has not been incorporated into CHE's planning process. Not a single completed or proposed planning study addresses the question of what students are learning or how well their educational experience is preparing them for life after graduation.

Many people doubt that the present quality of higher education is satisfactory. Eight out of ten faculty members at colleges and universities across the country believe there has been a widespread lowering of standards in higher education. Recently educators in South Carolina were concerned by a State Department of Education

report that 37 percent of all graduates of public institutions who took the National Teacher's Examination (NTE) in November 1976 and February 1977 failed to make the minimum score. The four institutions having the highest percentage of students passing the NTE were all private institutions. USC officials have expressed concern that a low percentage of the State's high school honor students choose to continue their education at a postsecondary institution within the State. Public college and university presidents expressed concern to the Audit Council that public institutions would be forced in the future to lower admission criteria and instructional standards as the competition for students intensifies.

Other states have shown that useful information on institutional performance can be collected. Work by the Western Interstate Commission for Higher Education and states such as Hawaii, Washington, Illinois and Tennessee has placed major emphasis on performance indicators collected from institutions. In Hawaii, for example, efforts are underway to identify a select number of performance measures against which institutions can be audited and evaluated.

Once performance data are available they can be used to indicate which public institutions or academic programs are in trouble and need further evaluation. An in-depth evaluation could lead to a discovery of ways to strengthen the institution or program. Also, a systematic evaluation of effectiveness would provide a method for reviewing the master plan, once adopted.

The real purpose of planning is to achieve results in the pursuit of improvement in postsecondary education. But failing to plan for enrollment stabilization or decline may result in the deterioration

of quality education. Little enrollment growth will lead to greater competition among institutions for students and scarce resources. Many educators fear that in reaction to shrinking enrollment, institutions may lower admission standards and become more reluctant to impose high academic standards on students.

Conclusion

Effective planning requires that both State Government and higher education face new problems and make difficult choices, but such planning has not been accomplished by CHE. Planning poorly done can be worse than no planning effort. The past years of planning conducted by CHE have consumed additional funds, time and energy without improving postsecondary education. More important, planning inadequately done may create a false sense of security that the State is preparing for the future. This may discourage the State from recognizing future changes early enough to plan for effective action.

RECOMMENDATIONS

(A) MEASUREMENTS FOR GOALS:

STATEWIDE GOALS FOR POSTSECONDARY EDUCATION SHOULD BE TRANSLATED INTO MEASURABLE TERMS. CHE SHOULD ACCUMULATE ACCURATE INFORMATION TO ASSESS PROGRESS MADE TOWARD ACHIEVING STATEWIDE GOALS.

(B) REVISED ENROLLMENT PROJECTIONS:

SEVERAL ENROLLMENT PROJECTIONS FOR THE STATE AS WELL AS INDIVIDUAL INSTITUTIONS SHOULD BE PREPARED, EACH USING A DIFFERENT SET OF ASSUMPTIONS REGARDING CHANGES IN SUCH VARIABLES

AS BIRTH RATES, POPULATION MIGRATION, STUDENT MIX, ETC. A STATEWIDE TASK FORCE SHOULD BE CREATED TO REVIEW THESE DIFFERENT PROJECTIONS AND ADVISE CHE ON FUTURE ENROLLMENTS.

(C) PLANNING FOR ENROLLMENT STABILIZATION OR DECLINE: THE MASTER PLAN SHOULD IDENTIFY CHALLENGES LIKELY TO FACE POSTSECONDARY EDUCATION IF SUBSTANTIAL ENROLLMENT GROWTH DOES NOT OCCUR. AS A START PLANNING STUDIES ON UNNECESSARY DUPLICATION, BUILDING QUALITY, STUDENT TRANSFERS, TUITION AND FACULTY COMPENSATION SHOULD BE COMPLETED TO PRODUCE RECOMMENDATIONS FOR IMPROVEMENTS.

(D) ASSESSMENT OF INSTITUTIONAL EFFECTIVENESS: CHE SHOULD WORK WITH INSTITUTIONAL ADMINISTRATORS AND STATE GOVERNMENT OFFICIALS TO IDENTIFY RESULTS EXPECTED OF POSTSECONDARY INSTITUTIONS TOGETHER WITH MEASURES FOR THOSE RESULTS. AS A START, CHE SHOULD EVALUATE THE USEFULNESS OF THE INVENTORY OF HIGHER EDUCATION OUTCOME MEASURES DEVELOPED BY THE NATIONAL CENTER FOR HIGHER EDUCATION MANAGEMENT SYSTEMS.

(E) REVISED MISSION STATEMENTS: MISSION STATEMENTS SHOULD BE REVISED TO CLEARLY STATE CHANGES NEEDED IN THE ACADEMIC PROGRAMS OFFERED BY EACH PUBLIC INSTITUTION.

(F) BROAD BASED INPUT:

THE PLANNING PROCESS SHOULD ENCOURAGE PARTICIPATION OF ALL CONSTITUENCIES BY SUCH MECHANISMS AS PUBLIC HEARINGS HELD IN MAJOR REGIONS OF THE STATE.

(G) PLAN IMPLEMENTATION:

RESPONSIBILITY FOR IMPLEMENTATION OF EACH RECOMMENDATION SHOULD BE MADE EXPLICIT. RECOMMENDATIONS SHOULD BE SPECIFIC ENOUGH SO THAT IT WILL BE POSSIBLE AT A FUTURE DATE TO DETERMINE WHETHER RECOMMENDATIONS HAVE BEEN IMPLEMENTED. TARGET DATES FOR THE ACCOMPLISHMENT OF RECOMMENDATIONS SHOULD BE ESTABLISHED. PROCEDURES SHOULD BE DEVELOPED FOR EVALUATING ANNUALLY THE EXTENT OF IMPLEMENTATION.

CHAPTER II

COORDINATION OF ACADEMIC PROGRAMS

Introduction

One reason CHE was created was to provide a mechanism for coordinating the development of academic programs to prevent unnecessary duplication. Colleges, universities, and technical education institutions must gain the approval of CHE or the Legislature before beginning new academic programs. In addition, CHE has had since its creation the duty to study all academic programs and make recommendations regarding "areas of State-level coordination and cooperation with the objective of reducing duplication, increasing effectiveness and achieving economies."

The 1976 Legislature expanded CHE authority regarding technical education programs. CHE was given authority to approve or terminate all college parallel courses or associate degree programs offered by technical education institutions.

The 1978 legislation gave CHE the explicit responsibility to recommend the termination of unnecessary existing programs at any public institution with the the exception of diploma and certificate programs offered by technical institutions. Institutions have sixty days to appeal CHE recommendations to the Senate Education Committee and the House Education and Public Works Committee which will make the final decision on appeals.

This chapter is divided into three parts. The first section analyzes the extent to which CHE has promoted academic efficiency by recommending the elimination of unnecessary programs. The second part describes duplication of programs between technical educational institutions and State colleges and universities. The final segment evaluates how well the rapid expansion of off-campus courses has been coordinated.

NEED TO DEVELOP A CONTINUING PROCESS TO IDENTIFY AND RECOMMEND TERMINATION OF UNNECESSARY PROGRAMS

Only once since its creation in 1967 has CHE attempted to promote the termination of unnecessary academic programs. In April 1973 CHE questioned the need to continue 78 graduate programs producing only a few graduates each year for the period 1966 through 1972. However, CHE's action resulted in only a few program terminations. CHE accepted justifications from public colleges and universities to continue without change 58 (74%) of the programs with low productivity. Only 7 graduate programs were discontinued and 13 programs were merged with other existing programs. CHE has not performed any follow-up analysis of the productivity of graduate programs.

Instead of a one-time effort, CHE's study should have been the first step toward developing a continuing process to identify and recommend terminating unnecessary programs. The experience of 17 other State-level higher education agencies which evaluate existing programs has demonstrated that achieving the elimination of unnecessary programs is dependent upon a continuing process of monitoring academic programs. Such successful processes contain three essential components. They (1) establish standards for academic program performance; (2) monitor on an annual or biennial basis deviations from standards; and (3) act to determine the causes of deviations from standards and whether deviations indicate that a program is no longer necessary. CHE has not developed a continuing process having these three components.

Florida is one state which has established an annual process for evaluating academic programs. The Florida Board of Regents reviews each year the number of degrees awarded for the previous three years

in all graduate and bachelor's programs. If the number of degrees awarded falls below an established minimum number, the program is placed on probation. For 1973 through 1975, 78 graduate and 83 bachelor's programs were placed on probation. If a program remains unproductive for three consecutive evaluations, it is scheduled for termination.

West Virginia utilizes a biennial evaluation schedule. Since 1971 the West Virginia Board of Regents has been reviewing enrollments, enrollment trends and degrees awarded in each program offered by public institutions according to the following schedule.

Associate Degree Programs -- Four years after the date of initiation and biennially thereafter

Baccalaureate Degree Programs -- Six years after the date of initiation and biennially thereafter

Master's Degree Programs -- Four years after the date of initiation and biennially thereafter

Doctoral Degree Programs -- Six years after the date of initiation and biennially thereafter

Florida, West Virginia and other states have developed a two phase process of evaluating existing programs. The first phase is a screening process which uses quantitative standards to identify possible problems. The screening process is the responsibility of the state central agency, which monitors program characteristics such as:

- the number of graduates from the program in each of the last five years;
- the number of students enrolled in the program (including entry and drop-out rates);
- the size of classes and the cost of courses identified as integral elements in the program;
- cost per program graduate;

- faculty work load;
- total production of graduates in the program areas from all institutions in the State, region, or nation as compared to the manpower needs of the State.

After the screening process has identified potential problem programs, an extensive program review is begun. This second phase is essentially a qualitative assessment and a study of alternatives to an existing program. This indepth review is usually conducted by an out-of-state team of experts capable of assessing program quality. The central agency thus receives an objective academic judgment of program quality and makes the decision for continuance or curtailment of the program.

Either an annual or biennial evaluation cycle for existing programs is needed in South Carolina because some graduate programs which may have been justified at one time are now unnecessarily duplicative because enrollment has decreased or student interests have changed. An important indicator of unnecessary duplication used by other states is program enrollment. One result of unnecessary duplication is the existence of programs having insufficient enrollment to maintain academic quality and keep operating costs at a reasonable level.

Low enrollment programs which are unnecessary are often continued because colleges and universities are eager to develop new graduate programs and reluctant to drop old ones. A former executive director of a statewide coordinating board, currently president of a large State university, observed that "the task of existing program review goes essentially unchallenged as the leader among those responsibilities for which college personnel will gladly pass the buck." Several South Carolina college and university administrators admitted in interviews with Audit Council staff that some unproductive programs were continued

due to pressure from faculty and interested groups outside the institutions.

Two examples of graduate programs for which enrollment has been decreasing are Foreign Language and History. USC-Columbia and Winthrop both offer master's degrees in Spanish and French. Officials at Winthrop's graduate school said that the demand for these degrees has diminished since the early 1970's and only 2 or 3 master's degrees are awarded each year. A professor at USC-Columbia also confirmed decreasing enrollment and estimated that only 3 degrees in each language would be awarded in 1977-1978. Decreased enrollment suggests consolidating these graduate programs.

Clemson, Citadel, USC-Columbia, and Winthrop all offer master's degrees in history. In academic year 1974-1975 these institutions awarded a total 53 degrees. Two years later, 1976-1977, the total master's degrees awarded in history dropped 58 percent to 22 degrees. Clemson had only one graduate, while Winthrop awarded 5 degrees. Again, decreased enrollment would suggest some consolidation of these programs.

In addition to Foreign Language and History, graduate programs in Chemical, Civil, Electrical and Mechanical Engineering offered by both USC-Columbia and Clemson seem to have only enough graduates to justify a single graduate engineering school for the State, especially at the doctoral level. Graduate programs in Marine Biology offered by USC-Columbia and the College of Charleston, Music Education offered by USC-Columbia and Winthrop, and Mathematics offered by the Citadel, Clemson USC-Columbia, and Winthrop are other examples where the low number of graduates does not seem to justify to the continuation of duplicative programs.

Unnecessary duplication can also occur because professional

programs in some fields have expanded until the number of graduates far exceeds the job market's demand. To prevent the development of unnecessary new academic programs in professional fields CHE requires institutions to justify the need for new programs from the standpoint of manpower demands or forecasts of job opportunities for graduates. The rationale is that programs should be implemented only if there is assurance that the graduates will have a reasonable opportunity to apply their skills productively. This policy prevents the State from paying to train many more students in costly graduate or professional programs than needed by employers. However, CHE has never applied the same standard to existing programs. CHE has not conducted a study of the significance and impact of the oversupply of graduates in professional fields.

One field which currently has some unnecessary programs is education. Due to job market changes in recent years, the State is training many more teachers in some specialties than needed by public schools in South Carolina or other states. Degrees in education accounted for 22 percent of all bachelor's degrees awarded in 1974-1975. Currently nearly 40 percent of all graduate credit hours earned among all public institutions is in the field of education.

The market demand for teachers has changed dramatically, and the State is experiencing a teacher "surplus." A supply and demand study conducted by the South Carolina Department of Education revealed an overproduction of graduates in some teaching specialties for 1976-1977. Table 3 shows that the State's postsecondary schools are producing almost all of the teachers needed in some specialties and from two to eleven times the demand in other fields. When combined with teachers trained in other states who seek jobs in South Carolina, the State has a

substantial surplus of teachers. A surplus in some teaching specialties should not obscure the fact that there are shortages of adequately trained teachers in other states.

Teachers trained in South Carolina who look for jobs in other states encounter a nationwide teacher surplus. The National Center for Education Statistics conducted a survey to determine how many teachers who graduated in 1974-75 had found a teaching job one year later. The results nationally for persons with bachelor's degrees were:

227,000 graduated in 1974-75

184,000 applied for teaching jobs

94,000 or 51 percent of those who applied had a teaching job one year later

Since many master's degree students are teachers who are already employed, only newly certified master's candidates were surveyed. The results nationally were:

31,000 graduated in 1974-75

17,000 applied for teaching jobs

9,000 or 53 percent of those who applied had a teaching job one year later

Other states have taken actions to limit enrollments and eliminate unnecessary education programs. The Illinois Board of Higher Education recommended 20 percent reductions in teacher education enrollments in FY 73. The Illinois Board noted in 1976 that a general oversupply of elementary and secondary school teachers continued to exist and recommended that all teacher education programs be evaluated. The Board further recommended that public colleges and universities plan not to increase current levels of total enrollments in teacher education programs.

TABLE 3

Supply and Demand of Teachers for Selected Specialties in South Carolina

TEACHING SPECIALTY	1976-77 - ALL DISTRICTS			
	Job Openings	Graduates from S.C. Colleges/ Universities*	Total Firm Applications**	Average No. of Applications Per Opening
ELEMENTARY	1,128	1,028	8,596	7.6
ENGLISH	228	177	1,671	7.5
MATHEMATICS	192	115	978	5.1
HISTORY	23	147	484	21.0
SOCIAL STUDIES	128	168	1,838	14.4
BIOLOGY	20	47	293	14.6
PSYCHOLOGY	9	39	241	26.8
HEALTH & PHYSICAL EDUCATION	93	294	769	8.0
EARLY CHILDHOOD EDUCATION	21	247	77	3.7
COMMERCE	34	76	274	8.0

* Does not include persons currently employed in or on leave from teaching positions.

** Firm applications refers to certified teachers who actually applied and were interviewed.

Source: S. C. Dept. of Education, Estimated Professional District Staff and School Personnel Count.

In June 1976 the Board of Governors of the University of North Carolina initiated a comprehensive evaluation of all teacher education programs, completing the study in October 1977. As a result, 41 education programs that were found to be inactive, very low in productivity and low in strength were scheduled to be discontinued effective July 1, 1978. In addition another 115 programs were found to be in need of improvement. A plan for improving these programs was required from institutions by February 1978. Failure to submit an adequate plan for improvement will result in the discontinuation of the program.

The experience of other states has demonstrated that termination of unnecessary programs can result in substantial cost savings if the number of faculty is also reduced. The West Virginia Board of Regents requires institutions to report on how program terminations will affect changes in faculty. If South Carolina colleges and universities were required to terminate unnecessary programs and subsequently reduce faculty a direct cost savings could be achieved. Total State appropriations to institutions could be reduced or the savings allocated to improve needed programs.

NEED TO ELIMINATE UNNECESSARY DUPLICATION OF LIBERAL ARTS AND TECHNICAL EDUCATION PROGRAMS

Some technical education centers are currently offering the first two years of a traditional college program which duplicates the program of a nearby public college or university. In addition, some colleges and universities are offering associate degrees in technical fields which duplicate the programs of a techinical education center/college in the same area. CHE has been studying these cases of duplication for several years and has the authority to terminate unnecessary liberal arts programs

offered by technical education centers. But CHE has never decided whether these cases of duplication are necessary, and consequently, has not promoted the elimination of unnecessary duplication among liberal arts and technical education programs.

At least six technical education centers are offering liberal arts programs in close proximity to State supported colleges and universities offering the same instruction. At least five associate degrees in technical fields such as nursing and secretarial science are being duplicated by State two-year and four-year institutions which are close to one another. Tables 4 and 5 illustrate areas where this problem could exist.

CHE is aware of cases of unnecessary duplication, but has taken no effective action to correct the problem. The 1978 document, Comprehensive Planning for Postsecondary Education, recommended that (1) technical institutions should use the resources of nearby colleges and universities to provide college parallel courses; and (2) that colleges and universities generally should not offer two year occupationally oriented associate degree programs. USC is the only institution specified to divest itself of any programs. In other cases, CHE has not translated its general recommendations into specific directions to transfer associate degree programs to the appropriate institution.

Public institutions are unlikely to eliminate unnecessary duplication on their own because institutions compete to enroll as many students as possible. Growth in enrollment can be used to justify increased State appropriations. Therefore, CHE action to eliminate unnecessary liberal arts and technical education programs and associated faculty is necessary to increase academic efficiency in the State's postsecondary system.

TABLE 4

DUPLICATION OF LIBERAL ARTS PROGRAMS

	Technical Institution	Public College/University	Approximate Distant Apart
1.	Chesterfield-Marlboro	USC-Lancaster Francis Marion	55 miles 40 miles
2.	York	Winthrop	5 miles
3.	Midlands	USC-Columbia USC-Sumter USC-Aiken	5 miles 45 miles 55 miles
4.	Trident	College of Charleston	10 miles
5.	Greenville	USC-Spartanburg	30 miles
6.	Tri-County	Clemson	5 miles

TABLE 5

DUPLICATION OF ASSOCIATE TECHNICAL DEGREES

	Associate Degree	Technical Institutions	College/University Campus	Approximate Distance Apart
1.	Police Science/ Criminal Justice	A. Midlands B. Orangeburg	A. USC-Columbia B. USC-Aiken	5 miles 50 miles
2.	Secretarial Science/ Technology	A. Piedmont B. Midlands C. York	A. Lander B. USC-Columbia C. Winthrop	5 miles 5 miles 5 miles
3.	Nursing	A. Greenville B. Florence-Darlington C. Greenville	A. USC-Spartanburg B. USC-Coastal C. CLemson	30 miles 50 miles 30 miles
4.	Business and Commerce	Midlands	USC-Columbia	5 miles
5	Retail Management/ Marketing	Midlands	USC-Columbia	5 miles

NEED TO COORDINATE OFF-CAMPUS COURSES

Unnecessary duplication can occur among courses as well as academic degree programs, especially off-campus courses. Presently any public college or university can offer any of its courses at a location other than the main campus without informing CHE. Without information about off-campus courses, CHE cannot possibly promote inter-institutional coordination. Although CHE has a broad legal mandate to study "areas of State-level coordination and cooperation with the objective of reducing duplication," it has never conducted a comprehensive study of all off-campus courses, the problems they create, and actions needed to increase inter-institutional cooperation.

The lack of coordination has resulted in the unnecessary duplication of some teacher education courses. CHE has given some attention to off-campus teacher education courses, but CHE has not effectively coordinated these courses. In 1972 CHE became concerned about competition and apparent unnecessary duplication among those schools offering off-campus graduate education courses. The Advisory Committee on Graduate Teacher Education, composed of representatives from the schools of education, was formed to coordinate these courses. Most institutions report their off-campus offerings in education to the committee, but there has been no serious attempt to coordinate the courses and eliminate duplication. In Fall 1977, two hundred and twenty-five such courses were reported, and these offerings contained some apparent duplication. For example, in the Spartanburg area both USC and Clemson were planning to offer a course entitled "Teaching Reading in Elementary School." However, the Advisory Committee on Graduate Teacher Education did not even meet to discuss cases of apparent

duplication. The Committee's lack of interest in eliminating unnecessary duplication of courses is probably due to its members' conflict of interest. It is composed mainly of representatives of the schools of education which offer off-campus teacher education courses.

In addition to unnecessary duplication of courses, some off-campus courses may be over-funded and of poor quality. Under the CHE appropriation formula, the Fall 1977 off-campus education courses were eligible for as much as $3 million in funding. No cost analysis has ever been conducted to determine whether institutions are spending more or less than this amount. There is also no control over the quality of off-campus courses. CHE staff expressed concern to the Audit Council that some off-campus locations lack resources necessary to conduct instructional programs: libraries, physical facilities, and equipment. Such resources cannot always be transported to off-campus locations.

Other states have begun to recognize the need to better coordinate off-campus courses. Due to concerns about the proliferation of off-campus courses, the Texas Coordinating Board in 1975 began to implement its authority to approve any off-campus course offered for credit by a public institution. Review procedures include criteria regarding need, cost and quality of the courses. The Illinois Board of Higher Education must approve an off-campus course location when students can complete the program major for a degree at that off-campus location. The Illinois Board reviews instances of unnecessary duplication and makes recommendations to the governing boards of the institutions.

CONCLUSION

In the past CHE sought ways to accommodate the rapid growth of academic programs. It gave primary attention to preventing needless duplication among new programs. Future prospects for higher education, fewer students and scarce resources, require that CHE demand more and better institutional data so program cost and qaulity can be rigorously evaluated. With additional authority to demand from the institutions accountability for the productivity, quality and cost of existing programs, CHE can encourage the concentration of resources in programs where they are needed. The result will be a more efficient use of available funds as well as an improvement in the quality of academic programs.

RECOMMENDATIONS

I. INITIATE A CONTINUING PROCESS TO EVALUATE ACADEMIC PROGRAMS

A. EACH YEAR CHE SHOULD MONITOR PROGRAMS WITH LOW ENROLLMENTS. DOCTORAL PROGRAMS WITH TWO (2) OR FEWER GRADUATES, MASTER'S PROGRAMS WITH THREE (3) OR FEWER GRADUATES AND UNDERGRADUATE PROGRAMS WITH TEN (10) OR FEWER GRADUATES SHOULD BE THOROUGHLY EVALUATED TO DETERMINE WHETHER THEY SHOULD BE (A) CONTINUED, (B) PLACED ON PROVISIONAL STATUS UNTIL STRENGTHENED OR (C) TERMINATED.

B. TO FURTHER IDENTIFY UNNECESSARY DUPLICATION CHE SHOULD AT LEAST BIENNIALLY ANALYZE ITS INVENTORY OF ACADEMIC DEGREE PROGRAMS. A TASK FORCE OF STATE ADMINISTRATORS AND EDUCATORS, AUGMENTED WITH OUT-OF-STATE EXPERTS,

SHOULD INVESTIGATE CASES OF APPARENT DUPLICATION. ON THE BASIS OF SUCH STUDY, CHE SHOULD RECOMMEND THE TERMINATION OF SPECIFIC UNNECESSARY PROGRAMS.

C. CHE SHOULD CONDUCT A SPECIAL REVIEW AND EVALUATION OF ALL TEACHER EDUCATION PROGRAMS IN THE STATE. INFORMATION ON THE PRODUCTIVITY, STRENGTH, AND NEED FOR EACH PROGRAM SHOULD BE COLLECTED. THIS INFORMATION SHOULD BE REVIEWED BY A SPECIAL TEAM OF STATE EDUCATORS AND OUT-OF-STATE EXPERTS. INACTIVE PROGRAMS OR PROGRAMS OF LOW PRODUCTIVITY, STRENGTH, AND NEED SHOULD BE RECOMMENDED FOR TERMINATION. PROGRAMS WHICH ARE NEEDED BUT ARE RATED LOW IN STRENGTH SHOULD BE REQUIRED TO PREPARE PLANS FOR IMPROVEMENT. THOSE PROGRAMS FOR WHICH SATISFACTORY PLANS ARE NOT DEVELOPED SHOULD BE RECOMMENDED FOR TERMINATION. CHE SHOULD CONTINUE TO MONITOR EDUCATION PROGRAMS AND RECOMMEND TERMINATION FOR THOSE WHICH ARE NOT IMPROVED.

II. ELIMINATE UNNECESSARY DUPLICATION OF LIBERAL ARTS AND TECHNICAL EDUCATION PROGRAMS

A. CHE SHOULD TERMINATE SPECIFIC LIBERAL ARTS PROGRAMS OFFERED BY TECHNICAL INSTITUTIONS WHICH UNNECESSARILY DUPLICATE THE PROGRAMS OF A NEARBY STATE COLLEGE OR UNIVERSITY.

B. CHE SHOULD RECOMMEND TERMINATION OF SPECIFIC ASSOCIATE DEGREE PROGRAMS OFFERED BY STATE COLLEGES AND UNIVERSITIES WHICH UNNECESSARILY DUPLICATE PROGRAMS OF NEARBY TECHNICAL INSTITUTIONS.

III. IMPROVED COORDINATION OF OFF-CAMPUS COURSES

A. CHE SHOULD DEVELOP AND KEEP UP-TO-DATE A COMPREHENSIVE INVENTORY OF OFF-CAMPUS COURSES. THE INVENTORY SHOULD BE ANALYZED EACH YEAR TO IDENTIFY CASES OF (1) OFF-CAMPUS COURSES OFFERED IN THE SAME GEOGRAPHIC AREA BY TWO OR MORE INSTITUTIONS AND (2) OFF-CAMPUS COURSES WHICH COULD BE OFFERED MORE EFFICIENTLY BY AN INSTITUTION CLOSER TO THE COURSE LOCATION. ON THE BASIS OF THIS ANALYSIS, CHE SHOULD RECOMMEND TO INSTITUTIONAL GOVERNING BOARDS SPECIFIC ACTION TO IMPROVE COORDINATION.

B. CHE SHOULD MONITOR IMPLEMENTATION OF ITS RECOMMENDATIONS. IF INSTITUTIONS REFUSE TO COORDINATE OFF-CAMPUS COURSES, CHE SHOULD RECOMMEND CHANGES IN ITS LEGISLATION THAT WILL SUBJECT OFF-CAMPUS COURSES TO THE SAME REGULATIONS AS ACADEMIC PROGRAMS.

CHAPTER III

A CRITIQUE OF THE CHE APPROPRIATION FORMULA

Introduction

An important part of the 1978 legislation which restructured CHE requires it to submit an annual budget request to the State Budget and Control Board and General Assembly on behalf of public postsecondary educational institutions. Section 8 of Act 410 of 1978 specifies that the CHE budget request be divided into three categories:

(1) Funds for the continuing operation of each public institution of higher learning;
(2) Funds for salary increases for employees of such institutions exempt from the State Personnel Act;
(3) Funds requested itemized as to priority and covering such areas as new programs and activities, expansions of programs and activities, increases in enrollment, increases to accommodate internal shifts and categories of persons served, capital improvements, improvements in levels of operation and increases to decrease deficiencies and such other areas as the commission deems desirable.

In addition, supplemental appropriations requests from any public institution of higher education must be submitted first to the commission. If the commission does not concur in such requests the affected institution may request a hearing on such requests before the appropriate committee of the General Assembly. The commission shall have the right to appear at any such hearing and present its own recommendations and findings to the same committee.

Since 1972 CHE has placed primary emphasis on budget requests as computed by an appropriations formula (Appendix C). CHE was directed by the 1972 Appropriation Act to develop, with the assistance of the Budget and Control Board, a formula for the appropriation of basic educational operating funds of State universities and colleges, excluding the Medical University. The objective of the formula

is to provide, as nearly as practicable, uniform and adequate appropriations for similar courses of instruction and related educational costs among all institutions.

In 1977 the Legislature declared its intent that CHE continue to develop an appropriation formula.

(Section 13 1977-1978 Appropriation Act)

> Provided, Further, That the General Assembly finds it necessary, under emergency economic conditions to allocate funds for fiscal 77-78 to the higher educational institutions on a basis other than the formula developed by the Commission on Higher Education under mandate from the General Assembly.
>
> However, the General Assembly will utilize a formula approach in subsequent years and the Budget and Control Board, with the assistance of the Commission on Higher Education, is directed to continue its development of a recommended formula for the appropriation of funds for the basic educational operating expenses of the several State universities and colleges including the four-year Colleges at U.S.C.-Aiken, U.S.C.-Coastal, and the U.S.C.-Spartanburg (excluding the Medical University).

This chapter is divided into four sections. The first part discusses very briefly how the current CHE formula works. The usefulness of any appropriation formula depends upon its equity and its overall accuracy in estimating the total needs of each public institution. The second details four types of inaccuracies built into the CHE formula. Taken as a whole, these problems prevent the CHE formula from being a reasonably accurate basis for calculating State funding for higher education. The third and fourth sections explain why the formula fails to encourage a more effective use of resources and why formula based funding recommendations need to be adjusted according to actual enrollments.

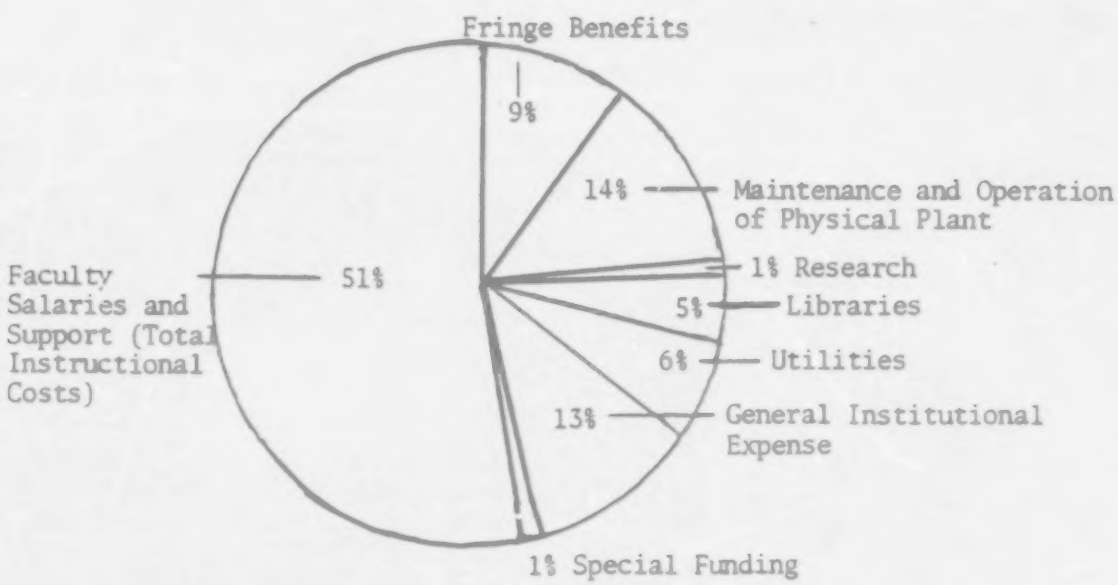
HOW THE CHE FORMULA WORKS

(See Appendix C for Complete Formula)

CHE chose to develop one of the least complicated types of appropriation formulas, a percentage formula based on enrollment. This means that most categories of costs are computed as a percentage of teaching faculty salaries and support costs. The number of teaching faculty for each institution is calculated according to the number of full-time equivalent students enrolled.

The formula has three parts; (1) basic educational and general operating costs, (2) institutional revenue for support of educational and general operations, and (3) special funding and research. The formula generates expenditure requirements for each institution (excluding the two medical schools). Institutional revenues used to support educational and general operations are subtracted from expenditures, and the difference equals State appropriations requested for basic educational and general operations costs. Added to that are special funding and research costs recommended by CHE for State funding.

FY 78-79 STATEWIDE RECOMMENDED BUDGET BASED ON CHE FORMULA



Part One - Basic Educational and Operating Expenditures

Formula funding for basic educational and operating expenditures is tied to one major variable, estimated enrollment. Put simply, the more students an institution estimates for the next year, the higher the level of State funding calculated by the formula.

Seventy-eight percent of formula expenditures are determined in the following manner. The formula's first two steps calculate the number of FTE (full-time equivalent) students. The third step calculates the number of teaching faculty using FTE student/faculty ratios by academic discipline and level of instruction. Each time the ratio changes, the number of teaching faculty funded by the formula is changed. The number of teaching faculty is multiplied by the salary rate for each type of institution (university, college, regional campus) to yield total salary costs. And a percentage of total salary costs is added for faculty support (deans, department heads, supplies, travel, etc.). Teaching faculty salaries plus faculty support equals total instructional costs.

Total instructional costs and fringe benefits account for 60 percent of formula budget recommendations for FY 78-79. Another 18 percent goes for libraries and general institutional expenses and is based on total instructional costs. In sum, 78 percent of all formula expenditures relate to total instructional costs, which are based on estimated FTE enrollment.

Funding of utilities and physical plant maintenance and operation (20% of FY 78-79 Recommendations) is not based on total instructional costs. Plant maintenance and operation costs for FY 78-79 are based on each institution's average expenditures for 1974-75 through 1976-77 plus a 6 percent increase each year. The allowance for utilities uses

each institution's expenditures for 1976-77 plus an 8 percent increase per year (20% for gas). Both of these expenditures are adjusted if an institution's facilities have expanded at a faster rate than FTE enrollments.

The amounts calculated for total instructional costs, fringe benefits, libraries, general institutional expenses, plant maintenance, and utilities are added together to determine basic educational and operating expenditures. These costs account for 98 percent of all formula-based recommendations.

Part Two - Revenues

Estimated revenues to be received by institutions for support of basic educational and operating costs are subtracted from estimated expenditures. The remainder equals the lump sum State appropriation requested by the formula for basic educational and general operations.

Part Three - Special Funding and Research

Two percent of formula recommendations is for special funding and research. Institutions may request special funding for continuing or one-time items. Separate research funding can be requested for special bureaus or institutes. For the two universities, a recommended $250 per FTE graduate student is included for research.

THE CHE FORMULA NEEDS TO BE MORE ACCURATE AND REALISTIC

CHE chose to develop one of the least complicated types of formulas, a percentage formula based on enrollments. The drawback to using a percentage type formula is that all institutions will deviate, some significantly, in actual expenditures from the cost rates and percentages used in the formula. The CHE formula is also based on estimated enrollment for the next year. The Audit Council found that the CHE formula cannot be accepted as an accurate and realistic basis for the State appropriations due to overestimated enrollments and substantial deviations between formula cost rates and actual institutional expenditures patterns.

Failure to Adjust Enrollment Projections for Student Attrition

Seventy-eight percent of formula based funding recommendations is tied to one variable, student enrollment. The more FTE (full-time equivalent) students which are projected for the next year, the higher an institution's recommended State funding, according to the formula.

A clearly erroneous assumption contained in CHE formula enrollment projections is that FTE student enrollment remains at the Fall level throughout the entire academic year. In fact, from the Fall 1976 to the Spring 1977 every State college and university experienced a decrease in FTE students. The average decrease was 6.7 percent ranging from a high of 12 percent (Lander) to a low of 3.4 percent (Winthrop). The CHE formula ignores student attrition and calculates funding for an entire academic year based on projected Fall enrollments.

If the Legislature were to fully fund the CHE formula, public institutions would be given a sizable financial cushion. The Audit

Council estimates that the fiscal impact of ignoring student attrition would be $3.2 million of funding in excess of that justified by actual enrollments if the Legislature appropriated the full formula level of funding recommended for FY 78-78.

CHE staff is aware that enrollment projections used in the formula ignore student attrition. However, the formula has not been changed because the staff does not believe the Commission should adjust projected Fall enrollments by a drop-out rate to anticipate lower Spring enrollment.

Excess Salary Funds

Institutions of higher education are labor intensive. Faculty compensation including fringe benefits accounts for 60 percent of formula recommendations. The CHE formula is especially generous to most colleges by allocating these institutions extra salary funds. This occurs because the formula treats all four-year colleges and USC branches as if their salary rates were equal to Winthrop's salaries. Winthrop pays the highest salaries of all colleges except the Citadel. Consequently, other colleges with actual faculty salaries lower than Winthrop receive excess salary funds under the formula. The same is also the case for USC-Columbia because for universities the formula uses Clemson's salary rate which is higher.

Extra salary funds also produce extra funds for other operating costs. Funding for faculty support, libraries, student services and other general institutional expenses is computed as a percentage of faculty salaries. Therefore, any increase in salary funds increases proportionately formula funding for non-salary items.

The fiscal impact of extra salary funds is shown in Table 6 Approximately $4.5 million in extra funding above actual salary costs is included in CHE's FY 78-79 formula recommendations.

The rationale for using the highest State college and university salary rate as the basis for funding all institutions has never been officially established by CHE. It was a staff recommendation never questioned by the Commission. The high salary rates are used in the formula to provide equity and to fund institutions generously. The generous nature of the formula was intended to make it acceptable to colleges and universities.

Either the average salary of similar State institutions or the comparable salary average for Southern states would be an equitable, but less generous basis for calculating faculty compensation. Using the salary average for Southern states would reduce excess salary funds for FY 78-79 from $4.5 million to $0.4 million, and basing faculty compensation on the average salary for South Carolina institutions would eliminate any overall excess salary funds.

TABLE 6

EXTRA SALARY FUNDS INCLUDED IN

FY 78-79 FORMULA

	Average 1976-77 faculty salary	Difference between average salary and formula salary	Total extra funds (including non-salary items
Winthrop*	$16,014	$ ----	$-----
S. C. State	14,139	1,875	644,500
College of Charleston	14,873	1,141	480,200
Francis Marion	13,950	2,064	405,200
Lander	14,218	1,796	278,000
USC-Aiken	12,685	3,329	423,000
USC-Coastal	13,223	2,791	381,300
USC-Spartanburg	12,800	3,214	545,400
Citadel+	16,540	-----	-------
Clemson*	17,808	-----	-------
USC-Columbia	17,201	607	1,336,200
Total Extra Funds			$ 4,493,800
Total FY 78-79 Formula Recommendations			138,740,273

*Formula salaries are based on salaries at Winthrop (for colleges) and Clemson (for universities), because these institutions have the highest salaries in their categories of institutions, with one exception.

+The Citadel's average salary is abnormally high and is being brought in line with Winthrop's salary over a four year period.

Outdated Cost Percentages

The formula's accuracy is further diminished because several cost percentages have not been kept up to date. Experience of other states has shown that formulas must be constantly re-evaluated to reflect as accurately as possible changing expenditure patterns of institutions. CHE last made a documented comparison of actual institutional expenditures and formula cost rates for FY 73-74. That comparison indicated that cost percentages used to calculate teaching faculty support, libraries, and general institutional expenses deviated significantly from actual institutional expenditures.

In 1973 a consultant recommended to the CHE that actual expenditures and formula cost rates should be compared in devising future improvements. States in which formulas have been used successfully over a number of years have done intensive work preparatory to each budget year to improve those cost rates which are least accurate. However, CHE staff has not devoted adequate attention to improving the formula's accuracy.

Federal and Other Funds are Underestimated

The CHE formula underestimates the Federal and other funds used to support basic education and operating expenses. Federal and other funds are underestimated by at least $5 million in formula calculations for FY 78-79. As a result, the formula tends to exaggerate the amount of State funds needed to support institutions.

The underestimation occurs for two reasons. First, the formula has only included unrestricted Federal and other funds. This allows institutions to underestimate revenue by classifying funds as restricted. CHE does not audit such accounts to determine whether funds are classified properly. Second, only a portion of actual

tuition aid fees used to support basic education and operating costs is included in the formula.

FORMULA PROVIDES NO INCENTIVE FOR IMPROVED PERFORMANCE

The CHE appropriations formula emphasizes quantity rather than quality. It is basically tied to FTE enrollment and student/faculty ratios. These indicators tell something about the activities institutions engage in and what level of effort they expend upon these activities. But the formula reveals nothing about the relationship between these activities and the results of education. Formula funding for an institution remains the same regardless of performance. The formula encourages institutions to obtain more students instead of improving the education of students.

There are a number of reasons for relating institutional performance with budgeting. The size of the higher education budget has become a major part (16%) of the State's expenditures. Inflation and reduced growth in enrollment will pressure institutions to identify and consider eliminating ineffective programs. Declining public confidence in government as well as higher education creates a strong need for Legislators to be able to inform the public about what institutions are doing with the funds they are appropriated.

The CHE formula will not promote improved effectiveness until an attempt is made to measure institutional effectiveness in educating students. CHE has not initiated any effort to inventory and measure the results of higher education because CHE staff believe that it is not the purpose of the formula to promote improved institutional effectiveness.

Reasonably objective measures are available which permit some assessment of effectiveness. The National Center for Higher Education Management Systems (NCHEMS) has developed an inventory of higher education performance variables. The inventory covers not only instructional programs but also major noninstructional areas such as research, community education and public service.

For example, colleges and universities are expected to help students develop general and specialized knowledge as well as critical thinking and reasoning skills. Performance measures for these variables could include student scores on various standardized tests, numbers of graduates accepting employment in their major field of study as a percentage of total graduates in that field, and a measurement of how satisfied students are with their ability to apply what they know.

The next step after developing performance measures would be to link performance and budgeting. One state, Tennessee, is currently exploring the feasibility of allocating some portion of State funds on the basis on institutional performance. Like South Carolina, the Tennessee Higher Education Commission (THEC) has spent several years developing an appropriation formula. The THEC recognizes the difficulties of measuring performance and the widespread fears of institutions about performance budgeting. Their effort is based on the proposition that "to expend millions of dollars on higher education and say that we have no measures of performance is a risky position to take. Even imperfect measures, wisely chosen, may operationally improve the allocation process." Currently, CHE annually recommends that the State expend millions of dollars on higher education with no measures of institutional performance.

FORMULA FUNDING NEEDS TO BE ADJUSTED FOR ACTUAL ENROLLMENTS

An important part of the formula which CHE has neglected to stress to the Budget and Control Board and the Legislature is that if State appropriations were based on the formula, then appropriations would need to be adjusted for actual Fall enrollments. CHE bases its formula recommendations on estimated enrollment for the next Fall. As enrollment has leveled off in the last two years, CHE enrollment projections used in the formula have been overestimated. Step 11 of the formula (Appendix C) states that lump-sum State appropriations to colleges and universities, if based on the formula, need to be adjusted for actual enrollment. However, in presenting its formula based recommendations to the Budget and Control Board and the Legislature, CHE has not emphasized that if appropriations were based on the formula, a provision would need to be added to the Appropriation Act to adjust appropriations according to actual Fall enrollment.

The process CHE uses to estimate enrollment for the next year is not reliable. When calculating formula based budget requests each college and university makes its own estimate of enrollment for the next Fall. Institutions are not required to provide CHE any explanation of the method used to forecast enrollment. In some instances, institutions have overestimated and manipulated enrollment estimates in order to increase formula recommended funding. For example, CHE based its FY 76-77 formula calculations on an estimated statewide FTE enrollment increase of 4.1 percent. Actual Fall 1976 FTE enrollment decreased by 0.4 percent. If the FY 76-77 formula had been fully funded and no adjustment made in the Fall of

1976 for actual enrollment, then colleges and universities would have received an excess of $8 million due to overestimated enrollment.

Overestimated enrollment occurs in two ways. First, institutions as a group make optimistic FTE enrollment estimates. Such overestimates may be made because institutions are planning to increase recruiting efforts or are hoping other variables will change to increase enrollment. Second, some institutions overestimate enrollment in disciplines with low student/faculty ratios, thereby increasing the number of teaching faculty funded under the formula. CHE staff attempt to identify flagrant enrollment manipulations, but even with an increasing computer capability, CHE admits that subtle manipulations are still not detected. Given the prospect of limited future growth in enrollments, institutions will probably intensify their efforts to inflate enrollment projections used in the CHE formula.

In making its budget request for FY 78-79 Audit Council staff observed that CHE made no written or verbal mention of the provision in Step 11 that if State appropriations are based on the formula, appropriations must be adjusted for actual Fall enrollments. CHE may have chosen not to emphasize the enrollment adjustment provision in Step 11 because it could result in one or more institutions receiving a lower State appropriation than in the previous year due to declining enrollment. And CHE has followed an unofficial policy of not recommending less State appropriations for any institution than it received in the previous year.

To prevent overfunding due to inflated enrollment estimates, CHE needs to emphasize to the Budget and Control Board and the Legislature that an intregal part of the CHE formula requires that State appropriations be adjusted for actual Fall enrollments. By doing so, CHE can

make it clear that the Legislature has a right to expect accurate cost estimates and that institutional attempts to overestimate enrollments will not result in unjustified fiscal gain.

CONCLUSION

If a formula approach to budgeting for colleges and universities is to be used, significant improvements in the CHE formula are needed. In the past CHE has stressed achieving an equitable formula. A comparative study of appropriation formulas used by 25 states in 1973 found CHE's formula to be equitable. Funding was recommended for similar programs in similar institutions in a uniform and fair manner. However, the Audit Council found that while striving for equity, CHE built into the formula several inaccurate and unrealistic assumptions, which prevent the current CHE formula from being an acceptable basis for calculating the funding of public colleges and universities.

Once improved, an appropriation formula could provide for an equitable allocation of funds and help make the State budget process more manageable. Once the Legislature determines that formula improvements have produced a more accurate and realistic formula without sacrificing equity, then it could use the formula as the basis for appropriations. CHE would prepare its budget request for higher education using the improved formula. The Legislature could then decide what portion of the formula the State can afford to fund: 80%, 90% or perhaps 100%. Funds would then be appropriated as a lump-sum to CHE and the formula could be used to equitably allocate appropriations among colleges and universities.

RECOMMENDATIONS

(1) ADJUSTMENT FOR STUDENT ATTRITION:

ENROLLMENT PROJECTIONS SHOULD BE ADJUSTED TO REFLECT THE ENROLLMENT REDUCTION WHICH WILL OCCUR DUE TO STUDENTS WHO DROP OUT DURING THE NEXT YEAR.

(2) FACULTY COMPENSATION:

FUNDING FOR EACH TEACHING FACULTY POSITION SHOULD BE CALCULATED BASED UPON EITHER A STATEWIDE AVERAGE SALARY OR THE AVERAGE SALARY PAID BY SIMILAR INSTITUTIONS IN OTHER SOUTHERN STATES.

(3) UPDATING THE FORMULA:

ACTUAL EXPENDITURES BY INSTITUTIONS SHOULD BE COMPARED AT LEAST ANNUALLY TO COST RATES AND PERCENTAGES USED IN THE FORMULA. THOSE COST CATEGORIES WHICH ARE LEAST ACCURATELY REPRESENTED BY THE FORMULA SHOULD BE CHANGED TO BRING THE FORMULA CLOSER TO REFLECTING ACTUAL EXPENDITURE PATTERNS. A FORMULA ADVISORY COMMITTEE REPRESENTING INSTITUTIONS, EXECUTIVE AND LEGISLATIVE FISCAL STAFF SHOULD BE CREATED TO ADVISE CHE ON NECESSARY CHANGES.

(4) FEDERAL AND OTHER FUNDS:

ALL FUNDS RECEIVED BY INSTITUTIONS, INCLUDING RESTRICTED FEDERAL AND OTHER FUNDS, WHICH SUPPORT COSTS INCLUDED IN THE FORMULA SHOULD BE SUBTRACTED FROM TOTAL FORMULA EXPENDITURES IN CALCULATING REQUESTS FOR STATE FUNDS.

(5) RECOGNIZING QUALITY:

THE FORMULA SHOULD RECOGNIZE THE QUALITATIVE EFFORTS OF INDIVIDUAL INSTITUTIONS AND BUILD IN INCENTIVES OF ADDITIONAL FUNDS FOR THE SUCCESSFUL COMPLETION OF PRE-STATED INSTITUTIONAL GOALS AND OBJECTIVES.

(6) AUDITING:

TO ASSURE THAT INSTITUTIONS SUPPLY CHE WITH VALID INFORMATION AS PART OF THE BUDGET PROCESS, CHE SHOULD PERIODICALLY CONDUCT AUDITS OF INSTITUTIONAL ENROLLMENT AND FINANCIAL RECORDS.

(7) PREVENTING OVERFUNDING DUE TO OVERESTIMATED ENROLLMENTS:

CHE SHOULD RECOMMEND TO THE BUDGET AND CONTROL BOARD AND THE LEGISLATURE THAT IF STATE APPROPRIATIONS ARE BASED ON THE CHE FORMULA, THEN A PROVISION BE ADDED TO THE APPROPRIATION ACT TO PROVIDE THAT STATE APPROPRIATIONS BE ADJUSTED FOR ACTUAL FALL ENROLLMENTS.

(8) PROMOTING EFFICIENT RESOURCE USE:

CHE SHOULD CONTINUE DEVELOPING UNIT COST DATA SO THAT ACTUAL DIFFERENCES IN COSTS OF SIMILAR PROGRAMS AMONG INSTITUTIONS MAY BE RECOGNIZED AND EXPLAINED. CHE SHOULD RECOMMEND TO INSTITUTIONS WAYS TO CONTAIN OR REDUCE COSTS. CHE COST ANALYSES SHOULD BE MADE AVAILABLE TO INSTITUTIONS, THE STATE AUDITOR'S OFFICE, AND THE LEGISLATURE.

CHAPTER IV

AGENCY RESPONSE

INTRODUCTION

The following section is the response of the Commission on Higher Education to this audit report. The Legislative Audit Council has reprinted CHE's response in its entirety. The Audit Council has included comments to set the record straight regarding certain aspects of CHE's response, but the absence of a comment does not signify Audit Council concurrence.

Overall, it appears the CHE does not understand the function of the Legislative Audit Council as established by the General Assembly. The Audit Council's purpose is to evaluate the efficiency and effectiveness of State agencies, to focus on problems and to make recommendations for improvements.

An important guide to the Audit Council in carrying out its responsibilities is Standards for Audit of Governmental Organizations, Programs, Activities and Functions established by the Comptroller General of the United States. That guide advises that:

> Information as to the satisfactory aspects, not just the deficient aspects, of operations examined, when significant and when warranted by the extent of the work, should be included in the auditor's report.

On pages 7-8 two noteworthy accomplishments of CHE are recognized.

State agencies have numerous opportunities to inform the Legislature

and the public of their accomplishments. The State's interests are best served by the Audit Council focusing on agency activities which need to be improved and on proposing specific recommendations for increased agency effectiveness.

S. C. COMMISSION ON HIGHER EDUCATION RESPONSE TO THE LEGISLATIVE AUDIT COUNCIL REPORT June 12, 1978

We had an opportunity in April to review a draft of this audit of the Commission on Higher Education and met at length with your staff later to correct errors in fact and, we believed, in interpretation contained in the draft. We read the final draft on May 29 and, although some corrections had been made, a number of errors remain in the report.

LAC COMMENT

Judging from the contents of this letter, what CHE considers to be "errors" are actually differences of opinion and interpretation rather than factual errors.

In the summary of the report, it is noted that "this audit does not describe CHE accomplishments but focuses on problems . . ." and that "focusing on problems should not obscure CHE accomplishments." I question the basic philosophy that precludes a balanced and unbiased appraisal of this or any other agency of State Government. I believe that emphasizing the negative builds in the probability that an audit report will misrepresent the true situation and mislead legislators and the public concerning the hard work and contributions to the public good of lay commission or board members and of the people employed in carrying out the duties and responsibilities assigned to them.

Before commenting on the specific matters dealt with in the report, therefore, I register objection to the generally negative tone of the report as a disservice to the Legislature, to State employees, and to the public. For example, neutral, non-value-laden words are used in the chapter headings and sub-headings (see Table of Contents), which I believe to be proper; by contrast, in the headings of sections in the Summary (to which most readers will probably give major attention) dealing with the three chapters the language used is anything but objective: i.e., "Inadequate . . .," "Failure to . . .," "Inaccurate and Unrealistic . . ."

LAC COMMENT

This descriptive language is used because it best summarizes the findings detailed in the various sections of this audit. Only if CHE could demonstrate that the findings are invalid would it be appropriate to change these phrases.

Through erosion of confidence in the agency and damage to the morale of those who serve the public, an audit report that lacks balance, emphasizing problems and neglecting accomplishments, can be counterproductive in achieving the desired positive results. In sum, we are disappointed in this report of the Legislative Audit Council.

LAC COMMENT

Interviews with public college, university and State officials revealed that CHE suffered an erosion of public confidence before this audit began. This was caused by CHE's failure to address the problems described in this audit. This report proposes many positive recommendations intended to improve CHE effectiveness. The Audit Council believes that staff morale and the public's confidence can best be improved by CHE attempting to implement these recommendations rather than resisting change.

The report fails to reflect the considerable progress made by the Commission in the same areas where the report is most critical. It ignores most of the accomplishments of the Commission and reaches conclusions often contrary to facts presented during the audit.

The Commission on Higher Education, since its inception in 1967, has had a positive impact on higher education in South Carolina within the limits of its statutory responsibilities and the resources made available to it to carry out those responsibilities. The Audit Council report acknowledges the Commission's effective process for program approval. It also recognizes the established value of the Management Information System but does not add that the MIS in its computerized form is being used as a model for other states. We regret that the report does not record such accomplishments as the Commission's role in establishing a computer network for the senior public institutions at a saving to the State of at least $1 million annually. Even though the CHE role with reference to funding of capital and operating expenses has been advisory, the application of a professional statewide perspective in the analysis of institutional requests has resulted in large savings to the State by helping to establish priorities for the best allocation of limited funds. The Commission has also provided leadership in interstate cooperation in higher education in extending educational opportunities for South Carolinians through arrangements with out-of-state institutions. We note also that the report does not include an assessment of the Commission's publications which we understand was requested. Such an assessment was undertaken and the results reported to us by your staff were favorable. It appears to us that the report does not in fact "include a review of the CHE's duties and responsibilities and an evaluation of the performance of those duties" as stated in the "Purpose" of the report.

LAC COMMENT

The Audit Council's purpose is to identify problems and recommend improvements in agency performance. It is appropriate for CHE to serve as its own public relations agent. Users of CHE publications were surveyed as a part of this audit. The results pertaining to MIS reports are described on pages 7-8. Survey results pertaining to long-range planning studies are explained on page 24.

Specific comments on each section of the report follow.

Long-Range Planning

The Commission produced a comprehensive plan in 1972 -- Goals for Higher Education Through 1980 -- and since 1975 has been engaged in updating and refining that plan. As the Audit Council report states, the 1972 plan was evaluated as one of the best in the country in terms of issues and depth of coverage -- only those of California, New York, Washington, New Jersey, and Pennsylvania being rated higher. Although the implementation of the 1972 plan was rated low in the Audit Council report, the fact is that of the 56 recommendations made, 22 have been completely accomplished, 27 partially accomplished, and only seven have not been implemented. Lack of implementation of the Commission's recommendations in this and other cases cannot be mentioned without noting that in some instances the General Assembly has chosen not to accept CHE recommendations -- often in response to institutions or other constituencies that opposed the CHE position.

LAC COMMENT

The Audit Council found that the 1972 CHE plan had little impact on public colleges and universities. On pages 23-25 it is pointed out that only 8 of 29 recommendations directed toward institutions have been fully implemented. What CHE considers as "partially implemented" is vague. According to interviews with college and university administrators, very little progress has been made on implementing most recommendations included in this category. The same consultants which evaluated the CHE plan favorably in terms of issues and depth of coverage, rated CHE's plan as weak in its treatment of plan implementation.

The report criticizes CHE for lack of specificity in planning and suggests specific procedures that should be followed in long-range planning. Four recently published CHE reports on optometric education, however, do reflect extensive specific planning including specific efforts aimed at implementation.

LAC COMMENT

CHE is apparently confused about what comprises its comprehensive or master plan for postsecondary education. Chapter 1 evaluates the two CHE efforts to develop a comprehensive plan. The latest planning report evaluated in that chapter was Comprehensive Planning for Postsecondary Education published in January 1978.

Its introduction stated:

> This is the first of several publications which will comprise a comprehensive plan for postsecondary education. (Emphasis added)

Since the four optometric studies were completed between April 1976 and July 1977, it appeared that they were not part of CHE's master plan and were therefore not included in documents evaluated in Chapter 1.

The Audit Council has reviewed the optometric studies. CHE's master plan report published in January 1978 should have contained the same degree of specificity as the previously completed optometric reports.

The report also charges that the Commission has "avoided the question of how effectively public institutions are performing." Two examples of the Commission's concern for the quality and effectiveness of institutional programs, however, are found in recent CHE publications on nutrition education and nursing education.

LAC COMMENT

On page 5 this audit states:

> CHE planning has also avoided the question of how effectively public institutions are performing. While the effectiveness of higher education is being questioned by some groups, not a single CHE planning study addresses what students are learning or how well their educational experience prepares them for life after graduation.

The two CHE reports only address effectiveness in a broad sense. They do not attempt to assess institutional performance in nutrition or nursing education. The reports do not include standards which can be used to measure institutional effectiveness; do not measure how well students are performing; and do not evaluate how well students are being prepared for careers after graduation.

Measurement of the outcomes of postsecondary education has been a continuing concern of the Commission. The Management Information System currently includes a number of reports which can be and are being used to evaluate trends in postsecondary education. CHE is working directly with the National Center for Higher Education Management Systems (NCHEMS) in developing outcome measures for higher education, measures which are still in the development stage although the report appears to view them as reliable. CHE has assisted several institutions in developing procedures for obtaining the views of their graduates as part of the evaluation process.

LAC COMMENT

When the Audit Council observed the CHE staff report to the Commission in January 1978 on the development of its management information system, a timetable for including outcome measures was not mentioned.

Measuring outcomes is difficult. But the Audit Council agrees with the criteria adopted by the Tennessee Higher Education Commission that "to expend millions of dollars on higher education and say that we have no measures of performance is a risky proposition. Even imperfect measures, wisely chosen, may operationally improve the allocation process."

Coordination in planning as well as in other areas has stressed widespread participation including presidents, staff members, and in some cases faculty of both public and private colleges and universities. We have relied to a large extent on such institutional representatives to reflect faculty and student concerns in planning for higher education. Task forces, working committees, and other advisory groups formed by the Commission also include wide representation. Commission members themselves possess a diversity of experience and interests, including viewpoints as members of the general public.

LAC COMMENT

Creative efforts by other states to involve a broad spectrum of students, faculty and the public in planning have been more successful than CHE's efforts as explained on page 20.

The report asserts that the Commission's statements describing institutional missions are both "vague" and full of "loopholes." In support of the point, the report quotes several sentences out of context from more detailed mission statements specific to each institution. For example, the report cites as "vague" the sentence, "Each [public] university should continue to develop, to high levels of competence and quality, those programs consistent with its mission," not noting that this is the concluding sentence of a paragraph highlighting the importance of programs of basic and applied research in the universities to the economic future of the State; nor that the specific program areas in which each of the three public universities is expected to specialize are specified elsewhere in the same Commission document.

LAC COMMENT

This sentence as well as the entire section on universities is vague because it never specifies what is meant by programs of "high levels of competence and of quality." CHE has never established standards by which the quality of programs could be judged and CHE has not proposed specific actions which institutions should take to improve the quality of programs referred to in this section.

The report cites this sentence as an example of a "loophole": "Some duplication of graduate programs has occurred and some will continue to be necessary." It was not noted, however, that the sentence is the first of a paragraph which states that the public universities should work cooperatively to avoid needless duplication of effort in these necessary areas.

LAC COMMENT

Quoted below is the entire paragraph which never identifies which programs are unnecessary and what actions institutions should take to reduce duplication.

> Some duplication of graduate programs between these universities has occurred, and some will continue to be necessary. In those cases, the institutions should work cooperatively to avoid needless

duplication and to promote greater efficiency. A good example of the kinds of joint effort that can be accomplished is the collaborative work of both in conjunction with research activities at Hobcaw Barony. The potential for equivalent division of labor within on-going programs at each campus is impressive.

On page 40 of this report the Audit Council does specify duplicative programs.

The Council staff's understanding of what constitute meaningful mission statements for institutions does not coincide with that of the Commission staff or with that of our counterparts in other states. Mission statements do not typically "identify unmet needs" or "specify academic disciplines in which new programs are needed" or "identify institutions which should improve specific academic programs." They do often, as do those prepared by the Commission, "identify opportunities for inter-institutional cooperation."

LAC COMMENT

The Audit Council interviewed staff of the Tennessee and Alabama Higher Education Commissions and sought the assistance of out-of-State experts in the coordination of higher education during this study. In addition, top administrators of all public colleges and universities were interviewed concerning their understanding of effective mission statements. The Audit Council found no support for confining mission statements to vague and meaningless rhetoric. Instead the Audit Council found support for the four criteria for effective mission statements described on page 22.

Although the report notes that its purpose is not to question the most recent enrollment projections which the Commission has published, the projections are cited as "the major weakness with the latest [planning] document," and it is said that the Commission "has not considered the prospect of little or no enrollment growth . . ." but should do so. The report recommends that the Commission make several enrollment projections for the State, without noting that the Commission has made two independent projections, using two entirely different methodologies and data bases.

LAC COMMENT

By different projections the Audit Council means that different assumptions should be tested using the same methodology. For example, CHE's projections assume a continued in-migration of the 18-21 age group for the next decade at the same rate as was experienced during 1970-1974. Since no one knows for certain what the actual rate will be, it seems reasonable to test the impact of various assumptions about the rate of in-migration to give decision-makers a better understanding of what the future might be.

The report does not recognize that the growth rate projected for colleges and universities, 2 to 3 percent per year, is substantially less than half the growth rate experienced by these institutions in the past seven years. The report notes the differences between the projections prepared by the Commission and those for South Carolina prepared by a staff member of the Southern Regional Education Board. Those differences were fully, completely, and accurately discussed in the publication of the Commission on Higher Education.

LAC COMMENT

Even a statewide growth rate of 2 to 3 percent a year is considered optimistic by some educators. In fact CHE actually projected only a 1.6 percent increase for Fall 1978 in budget presentations to the Legislature. But the important point is that some public institutions may have no growth or declines in enrollment and CHE's planning has ignored the consequences of this probability. In March 1978 Dr. Wilbert McKeachie, the new President of the American Association for Higher Education, warned that "the next decade is going to see a falloff in the number of people who have been in higher education and it could squeeze institutions with weak leadership out of existence." South Carolina might escape somewhat from the trend of declining enrollment, but in this uncertain period it seems prudent to develop a contingency plan that will maintain the strength of public institutions in the event of enrollment declines.

The report recommends that the Commission prepare separate projections for each institution, a requirement that is also set forth in the 1978 legislation. The report's recommendation regarding "different" assumptions about "birth rates" is not useful unless projections for postsecondary education enrollment are to be extended more than 20 years into the future. Persons expected to be enrolled in postsecondary institutions 18 years hence have already been born.

Academic Programs

Although the report does not mention it, the Commission had no statutory authority with reference to the termination of any programs in the public senior colleges and universities prior to the enactment of Act 410 on March 6, 1978. The report listed several methods used in other states in reviewing or terminating existing academic programs. It should be noted that of the four states cited in this regard, three (Florida, North Carolina, and West Virginia) have statewide governing boards for their public colleges and universities.

LAC COMMENT

On page 36 this report points out that when created in 1967 CHE was given the responsibility to study all academic programs and make recommendations regarding "areas of State-level coordination and cooperation with the objective of reducing duplication, increasing effectiveness and achieving economies." In discussions with the Audit Council, CHE staff have repeatedly admitted that CHE has always had the statutory responsibility to recommend termination of unnecessary programs but that responsibility has never been a high priority because CHE did not have the power to actually terminate programs.

The report identifies a need to evaluate teacher education programs, on the ground that a surplus of teachers exists nationally. The one set of figures specific to this State included in the Council's report is derived from a State Department of Education survey of school principals. The figures in the Table included in the report can be misleading because the column labeled "Firm Applications" includes not just new graduates but teachers already employed and seeking a change in location or teaching specialty or both. That inclusion has the effect of exaggerating the magnitude of the "surplus," which may or may not be real for new graduates.

LAC COMMENT

Column 2 of Table 3 on page 43 shows that new graduates from South Carolina colleges and universities nearly equal job openings in some specialties and exceed by many times job openings in other specialties. When added to teachers having experience plus teachers from other states who seek jobs in South Carolina, there can be little doubt that South Carolina as well as the nation is experiencing a surplus of teachers.

In commenting on the existence of "liberal arts" programs leading to Associate in Science or Associate in Arts degrees offered by six Technical Education Colleges, the report does not note that each of the programs was approved by the Commission only after full investigation of whether or not such "duplication" was "necessary" or "unnecessary." We and the staff of the State Board for Technical and Comprehensive Education are in agreement that these programs, as well as other programs leading to associate degrees offered by institutions in the TEC system, should be evaluated and reviewed periodically.

LAC COMMENT

To this date there have been no evaluations conducted by either SBTCE or CHE of the continuing necessity of duplicating liberal arts programs in technical institutions and four-year public colleges.

We note that the Commission and the State TEC Board consistently employ more reasonable commuting distances of up to 30 miles, rather than 55 miles as employed by your staff, in stating criteria for the establishment of associate degree programs and in assessing the need for additional ones which may be proposed.

The report comments on the need for "improved" coordination of off-campus courses offered by public postsecondary institutions. We share the belief of the public and private institutions involved, and of school teachers and administrators, that provision of opportunities for continued improvement of knowledge and skills on the part of teachers and administrators is essential. In 1972 the Commission created its Advisory Committee on Graduate Teacher Education to assist all institutions in responding to these needs in the most efficient manner possible. Among other things, this Committee provides a central clearinghouse by which each institution may know in advance what plans for such instruction all others are making. The Committee has also offered its services to the school districts in the State in meeting the needs they may identify. We believe the institutions involved share

our conviction that the coordinative mechanism provided in this way by the Commission is potentially better able to respond to local needs and is preferable to centralized control.

Appropriation Formula

Development of an appropriation formula for the equitable and adequate funding of the public colleges and universities was undertaken by the Commission in 1971 at the request of the Governor. Subsequently, the Budget and Control Board and the Commission were directed by the General Assembly to continue such development, with the proviso that ". . . the objective of the formula shall be to provide, as nearly as practicable, uniform and adequate appropriations for similar courses of instruction and related educational costs among all institutions . . ."

The formula is thoroughly reviewed and updated annually with opportunity provided for full participation by staff members of the Commission, all of the public colleges and universities, the Governor's Office, the State Auditor's Office, the Senate Finance and Education Committees, and the Ways and Means and Education Committees of the House. Each year, following such review and updating, the Commission has approved the formula unanimously. Formation of a formula review committee, composed of the above representatives, as recommended in the report, would continue under another name a process that has been in active existence since 1972.

Certain formula provisions characterized in the report as "inaccurate" are, in fact, accurate, since they produce precisely what they are intended to produce.

LAC COMMENT

By inaccurate, the Audit Council means that the CHE formula is not a realistic approximation of the expenditure trends of public colleges and universities. The importance of accuracy was emphasized by Dr. James L. Miller, author of State Budgeting for Higher Education: The Use of Formulas and Cost Analysis, when he evaluated the CHE formula in April 1973. Dr. Miller advised CHE that:

> The measure of a formula's usefulness should be its overall accuracy in estimating the total needs of each of the institutions in the State in a manner which is equitable.

Chapter 3 explains specifically how CHE's formula can be made more accurate while retaining its equity.

The report proposes formula changes which have been considered in the past and discarded as inappropriate or impractical. Alleged savings through such changes are exaggerated. For example, it is proposed to reduce the institutions' appropriations substantially because of enrollment attrition which always occurs between fall and spring semesters -- despite the obvious facts that (1) classes in the spring usually cannot be cancelled merely because they are slightly smaller than in the fall, and (2) faculty are normally hired on a nine-month contract basis.

LAC COMMENT

The Audit Council has explained to CHE staff that this report is not recommending that classes be cancelled in the Spring or that faculty be fired in the Spring. Instead, the Audit Council recommends that estimated Fall enrollment be adjusted to recognize student attrition and provide a more accurate enrollment estimate. As a result, institutions will be discouraged from hiring additional faculty or increasing operating costs in the Fall to serve students who will only remain on campus a few months.

As another example, it is proposed to reduce the institutions' State appropriations substantially by deducting Federal and other income received for Sponsored Research and Other Sponsored Programs even though the formula already prohibits any State funding for such purposes.

LAC COMMENT

While the formula in Step 11 does require institutions to deduct Federal and other revenue, institutions have underestimated Federal and other funds. Although CHE staff is aware of these underestimations, they have not attempted to correct them.

As a further example, reducing formula funding for faculty salaries to the average faculty salaries for all colleges and universities would deny adequate funding for the institutions having the higher average faculty salaries.

Despite allegations in the report to the contrary, the Commission staff continuously compares actual operating conditions in the colleges and universities, both in-state and out-of-state, with formula provisions with the view of assuring a realistic formula.

LAC COMMENT

The only documented record provided by CHE to the Audit Council of any effort to evaluate the formula's accuracy was for FY 73-74 as noted on page 61.

The institutions' enrollment estimates are tested by the Commission staff and, when considered unrealistic, are revised downward by the Commission. The formula specifically provides for revising State appropriations in accordance with actual fall enrollments; annual General Appropriation Acts included similar provisions during years when the General Assembly utilized the formula more fully.

The report's references to Outcomes of Postsecondary Education, a compilation of procedures for better understanding the benefits of higher education prepared by the National Center for Higher Education Management Systems, ignore the fact that the Commission staff (1) has participated from the outset and continues to participate with NCHEMS in the development of such procedures, and (2) has assisted several of the State institutions in South Carolina in experimenting with some of them.

When these procedures have been more fully tested, we intend to consider various uses of them, including possible adaptation for formula purposes. In this regard, the Tennessee Higher Education Commission's experiment with incentive funding for performance is being watched with interest even though results to date are not promising.

LAC COMMENT

Concerning Tennessee's efforts to provide incentives in its formula for improved performance, Audit Council staff interviewed Dr. Grady Bogue, Director of the project for the Tennessee Higher Education Commission, and examined an evaluation of Tennessee's project performed by two external evaluators in August 1977.

While the project is not completed, it has for less than $150,000 caused eleven institutions to take a serious look at instructional goals and attempt to measure the effects on students. Due to its success the project continues to receive the financial support of the Fund for the Improvement of Postsecondary Education and the Ford Foundation.

A statement in the report that ". . . the drawback to using a percentage type formula (such as the Commission's) is that all institutions will deviate, some significantly, in actual expenditures from the cost rates and percentages used in the formula . . ." reflects a lack of understanding of the purpose of the formula, which is to fund uniformly, equitably, and adequately. Using each institution's own expenditure pattern would mean, in effect, no formula.

LAC COMMENT

The statement quoted in the above paragraph originally appeared on page 5 of an evaluation of CHE's formula written by Dr. James L. Miller and dated April 26, 1973. That Dr. Miller understands the purpose of CHE's formula is confirmed by his national reputation as an expert on formula budgeting and CHE's decision to select him to evaluate their own formula. The reason Dr. Miller's statement was included in the audit was to emphasize the need to make the CHE formula more accurate by minimizing the gap between formula cost rates and actual expenditure patterns of institutions.

The report concludes that the Commission's formula has produced "equitable" appropriation recommendations, including recommended funding "for similar programs in similar institutions in a uniform and fair manner." It also indicates that the formula, with certain modifications, should be used more fully by the General Assembly.

The report's conclusion also makes brief reference to a nationwide research study of budget formulas carried out at the University of Tennessee in 1973. It does not reveal, however, the study's complete finding: that the South Carolina formula was one of only five formulas which met seven of eight criteria established by a panel of experts -- and came closer than any other to meeting all eight of the criteria.

LAC COMMENT

The Audit Council carefully examined the study "A Comparative Analysis of the Existing Budget Formulas" conducted by Francis Gross while a graduate student at the University of Tennessee and published in December 1973. Mr. Gross' actual conclusion was that while "the budget formulas in twelve states (including South Carolina) were judged to be 'acceptable' on the basis of meeting the minimum requirements of at least six (out of eight) performance criteria, none could be designated as a model." Mr. Gross made no attempt to assess the accuracy of formulas in various states.

We know that, as in all agencies and organizations, improvements can be made by the Commission and its staff as they carry out the functions assigned to them by the General Assembly. A number of the recommendations in the report will be helpful to us in the months and years ahead.

APPENDIX A

A CLASSIFICATION OF THE 50 STATES BY PATTERN OF STATE-LEVEL COORDINATION AND GOVERNANCE OF HIGHER EDUCATION, 1977

PATTERN			STATE	
(A)	States Without Statutory Coordinating Agency	(3)	Nebraska Delaware	Vermont
(B)	States Having Statutory Coordinating Agency With Only Advisory Responsibility	(7)	Alabama Arkansas California[1] Michigan	Minnesota Washington Wyoming
(C)	States Having Statutory Coordinating Agency with Regulatory Responsibility	(18)	Colorado Connecticut Illinois Indiana Kentucky Louisianna[4] Maryland Massachusetts Missouri	New Jersey New Mexico Ohio[4] Oklahoma[4] Pennsylvania South Carolina Tennessee Texas Virginia
(D)	States Having Consolidated Governing Board	(22)	Alaska Arizona Florida Georgia Hawaii Idaho Iowa Kansas Maine Mississippi Montana	Neveda New York[5] North Carolina New Hampshire[2] North Dakota Oregon[3] Rhode Island South Dakota Utah West Virginia Wisconsin

[1] On April 1, 1974, the California Postsecondary Education Commission assumed the duties of the Coordinating Council for Higher Education.

[2] New Hampshire has both a Board of Trustees for the University System and a statutory coordinating agency.

[3] Oregon has both a State Governing Board of Higher Education and an Educational Coordinating Council.

[4] Louisiana, Ohio, and Oklahoma have Boards of Regents with specific regulatory powers but without broad governing authority.

[5] The Board of Regents of the University of the State of New York have supervisory responsibility for all levels of education, public and private.

Source: Education Commission of the States.

NUMBER OF STATES IN EACH CATEGORY OF STATEWIDE COORDINATION/GOVERNANCE

1939 - 1977

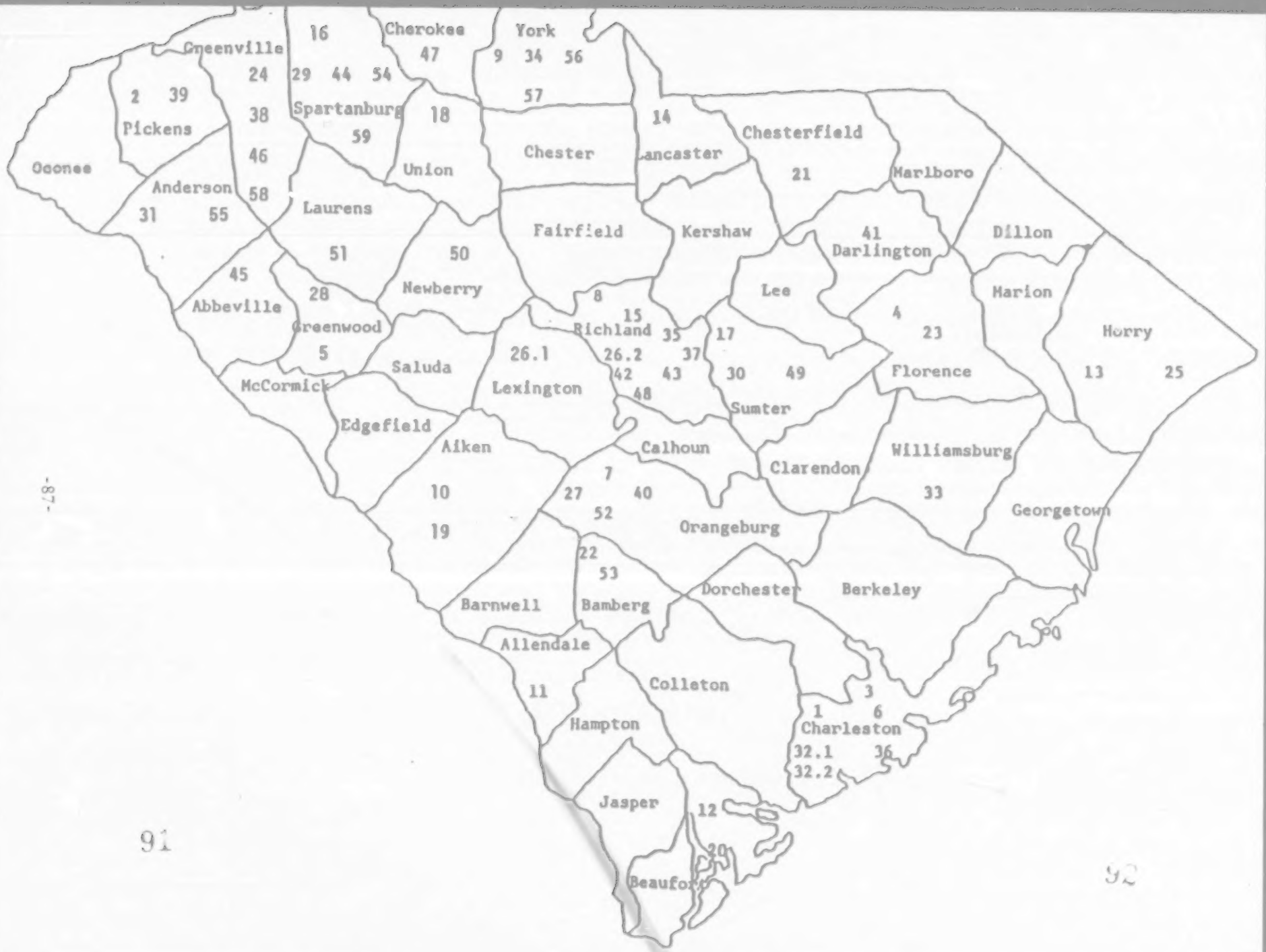
CATEGORY	1939	1949	1959	1969	1977
A. No Statutory Coordinating Agency	33	31	24	4	3
B. Coordinating Agency With Advisory Responsibility	1	1	5	13	7
C. Coordinating Agency With Regulatory Responsibility	1	2	5	14	18
D. Consolidated Governing Board	15	16	16	19	22

APPENDIX B

PUBLIC INSTITUTIONS OF HIGHER EDUCATION IN SOUTH CAROLINA

Map Code Number	Senior Colleges and Universities (Year Established as Public)
1	The Citadel (1842)
2	Clemson Univerisity (1889)
3	College of Charleston (1970)
4	Frances Marion College (1970)
5	Lander College (1972)
6	Medical University of South Carolina (1823)
7	South Carolina State College (1896)
8	University of South Carolina (1801)
9	Winthrop (1886)
	Regional Campuses of U.S.C.
10	Aiken (1976 four-year)
11	Salkahatchie (1965)
12	Beaufort (1959)
13	Coastal Carolina (1974 four-year)
14	Lancaster (1959)
16	Spartanburg (1975 four-year)
17	Sumter (1966)
18	Union (1965)
	Technical Education Centers and Colleges
19	Aiken Tec (1971)
20	Beaufort Tec (1968)
21	Chesterfield-Marlboro Tech. College (1969)
22	Denmark Tec (1947)
23	Florence-Darlington Tech. College (1964)
24	Greenville Tech. College (1962)
25	Horry-Georgetown Tec (1966)
26	Midlands Tech. College (1963)
26.1	Airport Campus
26.2	Beltline Campus
27	Orangeburg-Calhoun Tech. College (1968)

Map Code Number	Technical Education Centers and Colleges
28	Piedmont Tech. College (1966)
29	Spartanburg Tech. College (1963)
30	Sumter Area Tech. College (1963)
31	Tri-County Tech. College (1963)
32	Trident Tech. College(1964)
32.1	North Campus
32.2	Palmer Campus
33	Williamsburg Vocational Center (1969)
34	York Tech. College (1964)


Greenville
16
Cherokee
47
York
9 34 56
24
29 44 54
57
2 39
Pickens
38
Spartanburg
59
18
14
Chesterfield
21
Marlboro
Oconee
46
Union
Chester
Lancaster
Anderson
58
31 55
Laurens
51
50
Newberry
Fairfield
Kershaw
41
Darlington
Dillon
45
Abbeville
28
Greenwood
5
8
15
Richland
35
17
Lee
4
23
Florence
Marion
Horry
13 25
26.1
26.2
37
42 43
30 49
48
Sumter
Saluda
Lexington
McCormick
Edgefield
Aiken
10
19
7
27 40
52
Calhoun
Orangeburg
Clarendon
Williamsburg
33
Georgetown
22
53
Barnwell
Bamberg
Dorchester
Berkeley
Allendale
11
Colleton
Hampton
3
1 6
Charleston
32.1 36
32.2
Jasper
12
20
Beaufort
91
92
-78-

APPENDIX C

SOUTH CAROLINA COMMISSION ON HIGHER EDUCATION

1978-1979 APPROPRIATION FORMULA

1. Estimate the number of student credit hours to be produced, by level of instruction and academic area, during the Fall 1978 semester. Such estimate may include half credit for contact hours in physical education and remedial courses unless credit hours toward a degree are awarded for such courses.

2. Divide undergraduate credit hours by 15
professional (law) credit hours by 15
master's level credit hours by 11*
and doctoral credit hours by 9
to determine the number of FTF (Full Time Equivalent) students to be taught.

3. To find the number of FTE teaching faculty positions required, divide the number of FTE students at each level and in each academic area by an appropriate student/faculty ratio (see attachment).

4. Compute the cost of teaching faculty salaries as follows:
   (a) Of the total number of FTE teaching faculty (other than ROTC) positions required, determine the proportion to be filled by teaching assistants. (Use the proportion shown on Fall 1976 CHE Report 9, unless justification for a different proportion is presented.) Multiply the

number of FTE teaching assistants required by $6,633 (USC's 1976-1977 average 9 months FTE teaching assistant salary) plus improvements of 5% for 1977-1978 and 2.5% for 1978-1979.

(b) Multiply the remaining number of FTE teaching faculty (other than ROTC) positions required:

- by $17,808 (Clemson's 1976-1977 average 9 month salary for all main campus teaching faculty except student assistants) plus improvements of 6.7% and 2.5% for main campus operations of the two universities, or
- by $16,014 (Winthrop's 1976-1977 average 9 months teaching salary) plus improvements of 6.7% and 2.5% for colleges and four-year regional campuses, or
- by $13,304 (USC's General Studies' 1976-1977 average 9 months teaching salary) plus improvements of 6.7% and 2.5% for two-year regional campuses.

(c) ROTC faculty salaries may be computed at Step 4 (b) rates for purposes of calculating Steps 5, 6 and 8, but may not be included in Step 4.

5. For the two universities add 40%, for the colleges and four-year regional campuses add 35% (40% for graduate instruction), and for two-year regional campuses add 30% of total teaching salary requirements to provide for instructional costs other than teaching salaries (i.e., "teaching faculty support") such as non-teaching portions of deans' and department heads' salaries, secretaries and clerks, non-teaching graduate assistants, supplies, equipment, travel, telephone, etc. Teaching faculty salaries plus teaching faculty support equal total Instructional costs.

6. Add 10% of total Instructional costs (as determined in Step 5) to cover Libraries, including acquisitions and operations.

7. (a) Add the average of three years' (1974-1975, 1975-1976 and 1976-1977) actual expenditures for Operation and Maintenance of Plant (other than certain utilities) plus 6% per year. If during 1977-1978 or 1978-1979 the gross square footage of educational and general buildings increases at a faster rate than FTE student enrollments, add such incremental percentage to that year's allowance for general cost increases. Total allowable expenditures for Operation and Maintenance of Plant (other than certain utilities) may not exceed 31% of total Instructional costs.

   (b) Add the actual 1976-1977 expenditures for certain utilities (fuel oil, electricity, coal, and gas for heating, cooling and lighting) plus 8% per year (20% for gas). If during 1977-1978 or 1978-1979 the gross square footage of educational and general buildings increases at a faster rate that FTE student enrollments, add such incremental percentage to that year's 8% or 20% allowance for general cost increases.

8. Add 26% of total Instructional costs to cover General Administration, Student Services, General Institutional Expense, Organized Activities Related to Educational Departments, and Extension and Public Service.

9. Add the amounts calculated in Steps 4, 5, 6, 7 and 8 to determine the costs of basic Educational and General operations of each university main campus, each college or four-year regional campus, and the two-year regional campus system.

10. Compute the required student fee income deduction for Educational and General purposes at $300 for each FTE university or regional campus student and $200 for each FTE college student, the amount per FTE to be doubled for the predicted percentage of out-of-state students. To this add the estimated revenue from sales and services (including application, laboratory, auto registration, and other service fees) and any anticipated income from Federal or local governments to be received in support of 1978-1979 Educational and General operations.

11. Subtract the amount computed under Step 10 from the corresponding amount computed under Step 9. This determines the lump-sum State appropriation requested for basic Educational and General operations, subject to adjustment for actual Fall 1978 enrollments.

12. Special funding over and above that provided under Step 11 may be requested for continuing or one-time non-capital expenditures such as:

    (a) Continuing: Justifiable incremental costs of continuing special situations in which the institution is not free to discontinue or curtail costly services or those required by the State (e.g., The Citadel's necessary extra costs resulting from being a military college; S. C. State's necessary costs in excess of student fees and other income for operating the Felton Laboratory School; and S. C. State's necessary costs of special remedial counseling and guidance).

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(b) One-time: Justifiable net (i,e,. after deducting related revenues), major one-time costs such as the previously agreed extra costs of new programs approved by the Commission on Higher Education, special startup costs of new colleges if not covered by tuition retention, and amounts (in excess of those reasonably covered by Step 6, or by special startup costs, or by tuition retention) needed to bring library collections up to minimum accreditation standards. Note that equipment for new buildings is explicitly included in each permanent improvement project approved by the Budget and Control Board; redress for deficiencies should be sought through the same channels.

13. Special funding may also be requested for Separately Budgeted Research, including operation of special bureaus and institutes and the universities' general research supplement of $250 per FTE graduate student. These requests should be listed individually and justified fully. New programs require approval of the Commission. (Expenditures for Sponsored Research and other Sponsored Programs may not be included, since these are required to be self-supporting.)

NOTE: * The divisor for determining FTE master's level students will increase to 12 next year.

Adopted June 2, 1977

SOUTH CAROLINA COMMISSION ON HIGHER EDUCATION

STUDENT/FACULTY RATIOS FOR USE WITH
1978-1979 APPROPRIATION FORMULA

UNDERGRADUATE

Liberal Arts (including Social Sciences)	19:1
Sciences (including Mathematics)	22:1
Architecture	16:1
Fine Arts	14:1
Teacher Education (including Physical Education)	23:1
Teacher Education - Practice Teaching	12:1
Agriculture (including Forestry)	20:1
Engineering	16:1
Home Economics	12:1
Social Work	18:1
Criminal Justice	18:1
Nursing	7:1
Nursing Associate	8:1
Pharmacy	17:1
Business Administration (including Economics)	22:1
Textile Science	12:1
Library Science	20:1
Speech Pathology and Audiology	13:1
Military Science (ROTC)	12:1
Public Health	15:1
Remedial Instruction	16:1

MASTER'S AND PROFESSIONAL

Liberal Arts (including Social Sciences)	11:1
Sciences (including Mathematics)	9:1
Architecture	9:1
Fine Arts	8:1
Teacher Education	13:1
Agriculture (including Forestry)	11:1
Engineering	9:1
Home Economics	8:1
Law	26:1
Criminal Justice	12:1
Social Work	13:1
Library Science	10:1
Nursing	7:1
Business Administration (including Economics)	15:1
Textile Science	7:1
Speech Pathology and Audiology	7:1
Pharmacy	9:1
Public Health	7:1

DOCTORAL

Liberal Arts (including Social Sciences)	5:1
Sciences (including Mathematics)	7:1
Teacher Education	8:1
Agriculture (including Forestry).....	5:1
Engineering	6:1
Business Administration (including Economics).....	8:1
Textile Science	4:1

Adopted June 2, 1977